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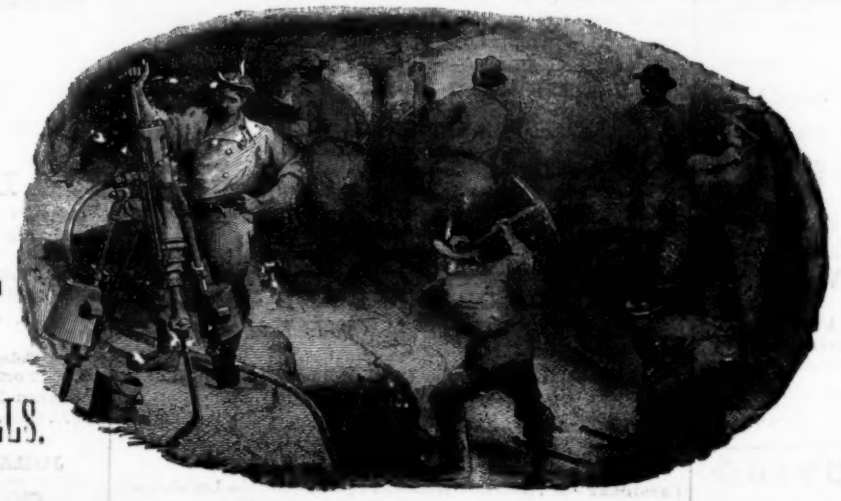

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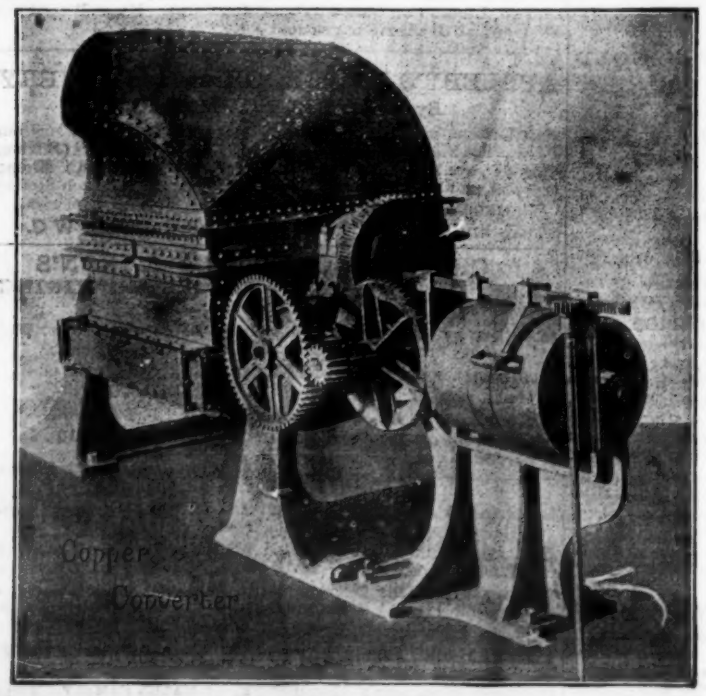

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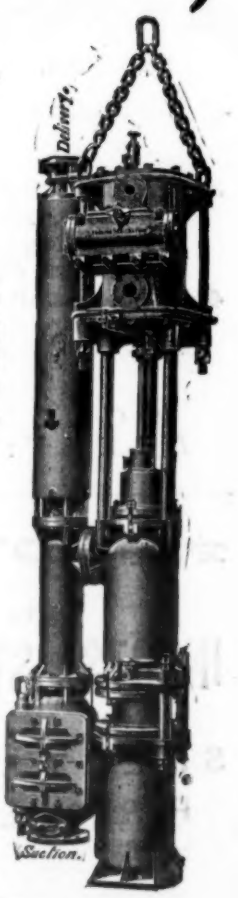
CARDIFF, and BELFAST.

JOHANNESBURG.

FIG. 875, "FLUOMETER" PATENT STEAM VACUUM PUMP.

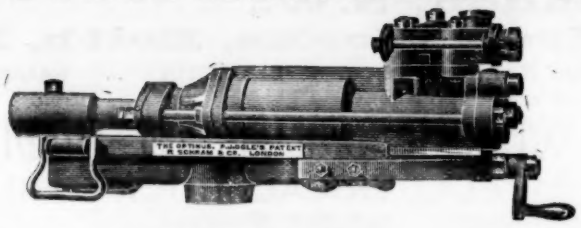
"CORNISH" PUMPS.
"DUPLEX" PUMPS.
"WALL" PUMPS.
"RAM" PUMPS.
"TAR" PUMPS.
"HORSE" PUMPS.
"POWER" PUMPS.
AIR COMPRESSORS, &c.



"STRAIGHT-LINE" PATTERN SINKING PUMP.

WOLVERHAMPTON.

REVOLUTION IN ROCK DRILLING



"OPTIMUS" COMPOUND ROCK DRILL.

(P J. OGLE'S PATENT.)

Consumes 40 per cent. less Compressed Air than any other Drill at the same time giving the most effectual results.

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WITH COMPOUND AIR AND STEAM CYLINDERS,

Fitted with SCHRAM'S Inlet and Outlet Valves giving the greatest efficiency.

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SUPPLIED TO THE INDIAN, COLONIAL, AND OTHER GOVERNMENTS.

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Hand-Power Diamond Prospecting Drills.

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RICHARD SCHRAM & CO., 17a, Great George St., Westminster, S.W.

TELEGRAMS "SCHRAM, LONDON," A1, A.B.C. and The Engineering Telegraph Codes Used.

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MANUFACTURERS OF

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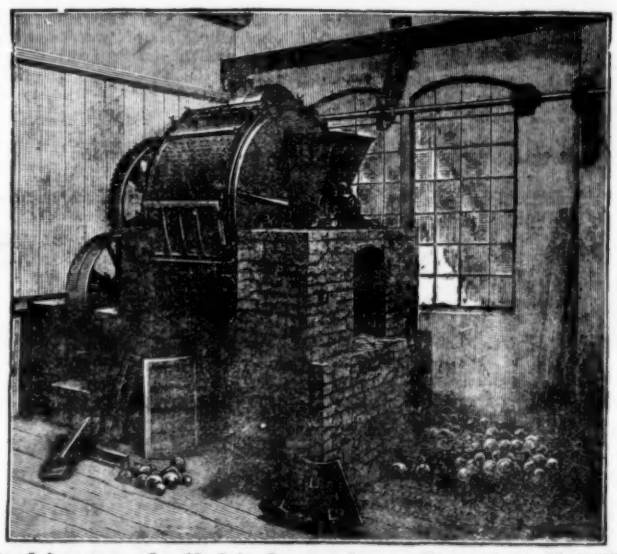
GOLD EXTRACTION MACHINERY.

(Laszlo' Amalgamators giving 20 to 40 per cent. more Gold than others).

SILVER EXTRACTION MACHINERY.



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Patent Ball Mills.

(Dry Crushers).

ORE-CONCENTRATION

DRY SEPARATOR

OF

PAPE-HENNEBERG.

3. Disintegrating Machinery of all kinds, such as Patent Ball Mills for Ores, Quartz, Cement, Basic Slag Grinding, &c. Excelsior Mills for Food Products, also for Tanneries, Chemical Factories, Sugar Factories, &c. Stone Breakers, Roller Mills, Crushers, &c., &c., Runners.
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Have all the latest improvements resulting from 19 years' practical experience in constant work.

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FACTS!

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FULL PARTICULARS SENT FREE.

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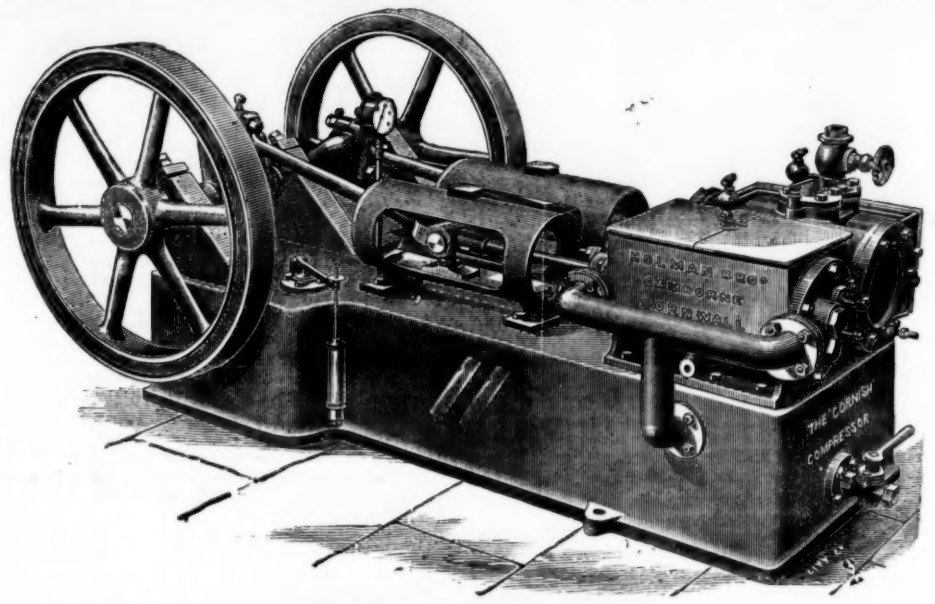
HOLMAN Bros., Camborne, Cornwall.

ESTABLISHED 1839.

Patentees and Sole Makers of

"THE CORNISH" ROCK DRILL and "THE CORNISH" COMPRESSOR.



RECORD OF WORK DONE

At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS,** equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES,** and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

Estimates for ROCK BORING PLANT and GENERAL MINING MACHINERY on Application.

London Offices: 7 and 9, LEADENHALL BUILDINGS, E.C.

JOHN DAVIS & SON,

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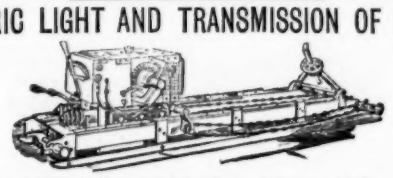
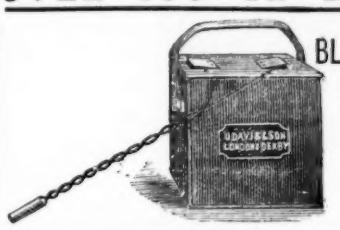
118, NEWGATE STREET, LONDON, E.C.,
CARDIFF, JOHANNESBURG, CALCUTTA.

ELECTRIC LIGHT AND TRANSMISSION OF POWER.



Jeffrey Machines for Undercutting Coal,
WORKED EITHER BY COMPRESSED AIR OR ELECTRICITY.
OVER 600 IN DAILY USE.



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HIGH OR LOW TENSION
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CABLES, FUSES.

Electric Signals and Telephones.

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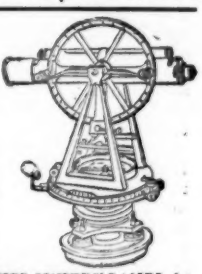
THEODOLITES, HEDLEY
DIALS, LEVELS,
CLINOMETERS.



MINERS' SAFETY LAMPS.
ALL PARTS INTERCHANGEABLE.

CATALOGUES UPON APPLICATION.
SEC. A. MATHEMATICAL & MINING INSTRUMENTS, MINERS' LAMPS, &c.
SEC. B. ELECTRICAL PLANT AND STORES.

THE STAFFORDSHIRE ADVERTISER.
ESTABLISHED 1795.
The Principal County Paper in the Midlands.

Advertisers will find it the BEST MEDIUM for reaching superior class of readers over large area centred by Staffordshire fifth county in population and sixth in wealth.

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AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

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The Clarkson-Stanfield Ore Reduction Co. (Limited).

In the **CLARKSON-STANFIELD** process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT ½ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

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The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—**The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.**

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs. Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

5313 **Henry Wilcke**, 15, Water Street, Liverpool.—Improvements in steam generators.—March 9.

5325 **William Hutchinson**, 66, Elisabeth Street, Salford, Manchester.—The construction of a chamber or receiver to coupled to existing strong hot-air blast furnaces for smelting the iron from the ore, and also to be adapted to new furnaces.—March 9.

5316 **Jubal Barrett**, 58, Low Street, Keighley.—Improved undercutting mechanism for use in quarrying stone, mining coal, and like operations.—March 9.

5338 **Sydney George Edwards**, Bank Buildings, George Street, Sheffield.—Improvements in metallic squares.—March 9.

5360 **Francis Ellershausen**, 85, Arlington Street, Islington, London.—Improvements in the reduction of refractory ores.—March 9.

5374 **Alfred Sydney Smith**, Thomas Alfred Smith, Rowland John Smith, Sydney Smith, and Thomas Deakin, 11, Burlington Chambers, New Street, Birmingham.—Improved apparatus for the electro-deposition of metals.—March 9.

5378 **Claude William Atkinson**, 1, Queen Victoria Street, London.—Improvements in machinery.

5387 **Thomas Austin Sergeant**, George Beck, 4, South Street, Finsbury, London.—An improved method of apparatus for feeding steam boilers and other vessels under pressure.—March 9.

5321 **George Bendler**, 77, Wellington Street, Glasgow.—Improvements in steam engines.—March 10.

5348 **Frank Howard Payne**, 18, Southampton Buildings, Chancery Lane, London.—Improvements relating to milling or metal surfacing tools.—March 10.

5319 **Robert Ashurst**, 7, Old Ford, Hindley Green, near Wigan.—Improvements in catches for cages when the rope has been unattached in the headgear over a coalpit.—March 10.

5356 **Leopold Psycvalka**, 69, Chancery Lane, London.—Improvement in the Bessemer or Thomas process for the treatment of low qualities of crude iron.—March 10.

5459 **John Albert Wright**, 39, Chancery, Lane, London.—An improved automatic dripcock for the cylinders of steam engines.

5509 **Hugh MacPhail**, 45, Southampton Buildings, Chancery Lane, London.—Improvements in or relating to economisers for use in connection with steam generators.—May 11,

5533 **Joseph Bazeaser Torres**, 17, St. Anne's Court, Wardour Street, London.—Improvements in or relating to the extraction of gold, and other metals from ores and the like.—March 12.

5536 **Joseph Schimidyn**, 17, St. Anne's Square, Birmingham, Manchester.—Improvements in or relating to steam generators and other vessels for heating fluids.

5549 **John Hay and James Montgomery**, 96, Buchanan Street, Glasgow.—Improvements in and relating to the consuming of smoke in steam boiler and other furnaces.—March 13.

5573 **Alexandre Stanley Elmore**, 28, Southampton Buildings, Chancery Lane, London.—Improvements in apparatus for refining metals by electrolysis.—March 13.

5726 **William Bateman Christon**, 24, South Side, Clapham Common, and Sunbridge Chambers, Bradford.—Improvements in steam engines.—March 14.

5746 **Hezekiah Cantherley and Thomas Birtwistle**, 8, Quality Court, Chancery Lane, London.—Improvements in or in connection with steam engines and boilers.—March 14.

SPECIFICATIONS PUBLISHED.

4158, McPhail, steam generator, 1895; 4882, Lamplough, steam trap, 1895; 5592, Scott Kaymer, drilling rock, &c., 1895; 5860, Haycraft, artificial fuel, 1895; 7502, Thomas and Smith, fuel, 1895; 14552, Eaves, steam generators, 1895; 1501, Boult (Thomas), mining splitting rock, 1895; 8729, Mumford, steam generators, 1895; 1477, Bell and Carter, precipitating gold and silver from cyanide solution; 18072, Mylack, hydro-carbon engine, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

**** We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.*

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Well, March 30 (*Framlingham, Suffolk*).—For making a well and fixing a pump in College Road, Framlingham, for the Plomesgate Rural District Council. Specifications of the required work can be seen on application to Mr. R. C. Precious, Sternfield, Saxmundham, or at the office of Mr. W. T. Read, Framlingham. Tenders to be delivered at the Board Room, Wickham Market, by 10 a.m, on 30th inst. Mr. C. H. Read, clerk.

Slack, March 31 (*Kidderminster*).—For supply of engine slack for 12 months commencing April 5, 1896, to their upper and lower pumping stations for the Town Council. Particulars and form of tender can be obtained upon application. Tenders to be sent in by 10 a.m. on 31st inst. to Mr. Arthur Comber, borough engineer, Town Hall, Kidderminster, sealed and endorsed "Tender for Slack."

Colliery Stores, March 31 (*Alfreton*).—The South Normanton Colliery Company (Limited), Alfreton, Derbyshire, invite tenders for 12 months supply of timber, iron, rails, steel girders, castings, ropes, oils, and other colliery stores. Forms of tenders, with conditions, may be had on application to the Colliery Offices. Applicants for forms must state the kind of goods they wish to tender for. Tenders to be sent to the Secretary, 26, Waldron Street, Bishop Auckland, by 31st inst.

Cornish Boiler, April 2 (*Chippenham*).—For new Cornish boiler, 5 feet diameter and 10 feet in length, for the Guardians. Plans and specifications may be obtained of Mr. Edmund M. Awdry, Clerk, and tenders, to include fixing, must be delivered to the Clerk by April 2.

Railway Stores, April 8 (*Lisbon*).—For the supply to the Royal Portuguese Railway Company of 250,000 kilogrammes of mineral oil, 2000 gauge-glasses, and sundry turntables (three tenders). Particulars can be obtained at the company's Paris office, 23, Rue de Chateaudun. Tenders to the chief engineer at the company's stores, Santa Apolonia, Lisbon.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

Hannan's King (Brownhill) Gold Mining Company (Limited).—Registered March 14 by John Vernon, Son and Stephen, 36, Coleman Street E.C. Capital £100,000, divided into 100,000 shares of £1 each. Objects: To adopt and carry into effect an agreement expressed to be made between Charles J. Roberts of the one part and this company of the other part: to acquire any mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, &c.; to develop, work and turn to account the same in such manner as the company shall see fit; and to carry on the business of a mining, milling, smelting and metallurgical company in all or any of its branches. The first directors—of whom there shall be not less than two nor more than seven—are to be elected by the signatories. Qualification, £500. Remuneration, £100 per annum each. Chairman, £150.

Truer River Gold Mining Company (Limited).—Registered March 14 by Foss and Ledsam, 3, Anchuren Lane, E.C. Capital £190,000, divided into 190,000 shares of £1 each. Objects: To acquire certain gold mines, mining, water and other rights, grants, leases, claims, concessions, metalliferous lands and other property situated in the Lydenburg district and the Witwatersrand gold fields districts, in the South African Republic (Transvaal), and known respectively as "Erasmushoop" and "Ledophine"; with a view to the foregoing objects to adopt and carry into effect an agreement (referred to in Clause 2 of the company's Articles of Association) expressed to be made between the Lydenburg Estates (Limited) and Henderson's Transvaal Estates (Limited) of the one part and this company of the other part; and generally to carry on the business of a mining, milling, smelting and metallurgical company in all or any of its branches. The first directors—of whom there shall be not less than three nor more than seven—are to be elected by the signatories. Qualification, £250. Remuneration, £150 per annum each; Chairman, £200.

Rockhampton (Queensland) Gold Estate (Limited).—Registered March 14 by W. R. Harrower, 31, Lombard Street, E.C. Capital £150,000, divided into 150,000 shares of £1 each. Objects: To adopt and carry into effect an agreement expressed to be made between the Kearney Gold Fields Company (Limited) and W. Marshall of the one part, and this company of the other part, for the acquisition of certain lands, mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, and other properties in Queensland; to develop, work, and turn to account the same in such manner as the company shall see fit; and to carry on the business of a mining, milling, smelting and metallurgical company generally. The first directors—of whom there shall be not less than three nor more than nine—are to be elected by the signatories. Qualification, £150. Remuneration, £1000 per annum, and a percentage of the profits, divisible.

Knox's Matabeleland Development Company (Limited).—Registered March 14 by Burn and Barridge, 11, Old Broad Street, E.C., with a capital of £100,000, divided into 100,000 shares of £1 each. Object: To adopt and carry into effect an agreement, made February 26, between the E. J. P. Syndicate (Limited) of the one part, and W. Becket, on behalf of this company, of the other part; to acquire certain property mentioned in the said agreements, also mines, mining, water and other rights, grants, leases, claims, concessions, options of purchase, metalliferous land, &c., in any part of the world, to develop and turn to account the same, and to carry on the business of a mining, milling, smelting, and metallurgical company in all or any of its branches.

NOTES ON GOLD MILLING IN CALIFORNIA.

By ED. B. PRESTON, M.E.

Bulletin No. 6. issued by the California State Mining Bureau.

(*Continued from page* 359.)

ON examining a plate that is in use under good working conditions, it will appear that the upper portion, immediately below the mortar (say) for a distance of 18 inches, carries at 75 per cent. of all the amalgam caught on the apron, the largest accumulation showing along the line of impingement next the lip of the mortar. Now if the apron plate were discontinued at about 2 feet, and continued again on a lower level of about 2 inches, a second line of accumulation would result, naturally on a smaller scale; hence the advantage of the step form. Another advantage in this style of apron is that by fastening these sections to the table by means of wooden buttons on the sides instead of cleats and screws, and having one extra plate on hand, the scraping and dressing of the same can be performed at any time, without stopping the crushing of the stamps, by removing the plate and substituting the extra one.

The grade of the apron plate should be such as to keep the surface clear from any pulp accumulation, but not steep enough to obtain a scouring action. It will depend on the coarseness of the pulp, the nature of the gold, the amount of water available, and the percentage and nature of the sulphurets. Where a battery plate is in use above the apron, it is usually given a grade of from 1½ inch to 2 inches to the foot. Grades for the apron proper vary from ½ inch to 2½ inches to the foot, but the average is about 1½ inch. The apron plates are usually silver-plated copper plates, which have largely superseded the copper amalgamated plate of former days—chiefly on account of the readiness with which the former plates do their full duty from the first starting, which is not the case with the copper plate; also on account of their freedom from discoloration by oxidation. If silvered plates be used when running a very low grade ore, the plating soon wears off, requiring a replating about every six months. The usual amount of silver put on plates is 1 ounce to the square foot. The usual thickness of copper plates is $\frac{1}{17}$ inch to ¼ inch. In preparing them for amalgamation they should first be carefully heated to a black heat, and plunged into cold water, which makes them soft and more ready to take up quicksilver. They are then scoured bright with fine tailings sand, moistened with some cyanide of potassium, and applied with a block of wood; then dressed all over with a weak solution of nitric acid, or with a cyanide of potassium and quicksilver, with sodium amalgam sprinkled over and brushed or rubbed into the surface. Before final use, it is well to give them a coating of fine gold amalgam; or, if not convenient, silver amalgam will answer. In using the cyanide of potassium solution, care must be taken not to use it too strong, especially if the quicksilver is not applied to the plate immediately, otherwise a coating is formed on the surface that will not take up the quicksilver. Where the ore is of a fair grade, after a long period of continuous use, the plate will have absorbed an amount of gold that will not yield to scraping unless the plate is immersed in boiling water for a time before being scraped, or heated over a fire and hammered with a mallet on the reverse side, in which case care must be taken not to dent the plate.

As the saving of amalgam on the apron and sluice plates is largely a matter of gravity, the conditions under which the pulp passes over the plates should conform to the laws pertaining to the falling of a body through a moving liquid medium; hence the proper shape of the apron, and the flow and consistency of the pulp, should be well considered. If, as was formerly the almost universal custom, the lower end of the apron be contracted (and in numerous cases this contraction was as great as four to one), the depth of the pulp spread over the surface of the plate increases as it passes down; the flow of the water across a given section becomes uneven, forming at the sides a swirl, along the edge of which sand is precipitated, covering and rendering that portion of the plate useless, from its inability to come in contact with the particles of amalgam, while producing scouring currents at other parts. The proper method is to spread the flow over a wider surface as it passes from one plate to the other, and lessen the grade, which may require an addition of clear water.

This contraction of the plates is made to this day in most of the mills when connecting with the sluice plates. The liquid pulp, starting with a width equal to that of the mortar discharge, is made to pass over sluice plates from 1 foot to 2½ feet in width; hence the comparatively small percentage of amalgam obtained from them. The only condition under which narrower plates are permissible is where, previous to receiving the pulp, a certain amount of the solid matter has been diverted. Where all the pulp goes from the plates to concentrators the latter become an important factor in regulating the amount of water turned into the battery. The feed water required for concentrators of the vanner types is from 1 to 2 gallons per minute.

In dressing the apron plates prior to starting the stamps, they are first washed down with the hose, to remove all particles of coarse sand which might otherwise scratch the plate during the subsequent dressing, then rubbed with a brush, using, if necessary, some fine tailings sand to remove all spots or stains. During this part of the operation the brush is moistened with different chemicals, according to the preference of the millman; some use weak cyanide of potassium, others use strong brine, with a small addition of sulphuric acid; also, sal ammoniac, or soda, or lye, besides other combinations. In many cases these prescriptions are carefully guarded by their possessors as trade secrets, and are considered the basis of all the success the owner has achieved in his business. Anything that will give the plate a clean surface, free from oxidation stains, and retain for the quicksilver its bright condition, is useful in this respect. The main point to achieve success is to always keep the amalgam on the plate bright, and of the right consistency, and this art can only be perfectly acquired by actual practice around the battery and plates. After the plate has been thoroughly cleaned, quicksilver is thinly sprinkled over the entire surface through a cloth, and spread evenly by means of a brush or piece of blanket, and, finally, the surface gone over with a soft broom or brush, from side to side; this leaves the amalgam remaining on the plate with fine ridges parallel to the screen.

Among the plate devices used in California mills, which may take the place of the apron plates, or may follow them, is a late invention known as the *Gold King Amalgamator*. It consists of an iron cylinder, or drum, 6 feet long and 12½ inches in diameter, divided lengthwise into two equal parts, hinged together, and capable of being locked. Fitting tight inside of the cylinder are two corresponding semi-cylindrical silver plates, each with two longitudinal ribs set radially, at one-third distance apart and about 3 inches deep. The upper end of the cylinder is furnished, around the circumference, with tooth gearing, into which fits a spur wheel with a four to one transmission, driven by a 12 inch pulley. In the centre of this end is a 3 inch feed opening, through which the pulp is dropped into the revolving cylinder. A trunnion at the lower end rests in a slide bearing that permits of fixing the grade to be given the cylinder by means of set screws. The machine makes 40 revolutions per minute, the pulp requiring about 3½ minutes to pass through the machine before being discharged. It is run by less than ½ horse power, and is easily set up. The pulp, when dropped in the closed cylinder, is caught by one of the ribs and raised to the highest point, when it drops, to be again taken up by the next rib, advancing at the same time a short distance ahead. The discharge is through the centre at the lower end of the cylinder. From 15 to 20 tons can be passed through in a day; or for a larger sized machine, from 25 to 40 tons.

Where concentrators are used in the mill, the sluice plates that follow the aprons are usually not over 8 feet in length and from 16 inches to 20 inches wide with less grade than the apron. This latter point is reversed in some mills, and the sluice plates are comparatively steep.

Between the aprons and the sluice boxes a drop box is placed, into which the pulp from the aprons discharges; there is one to each apron, or one for two adjoining ones. These boxes are 1 foot wide and about 10 inches deep, with flat or partly sloping bottoms; these latter, generally where one box is used for two aprons, the bottoms sloping from each end across the width of the apron, toward a central part where the bottom is level, and from whence it passes by overflow to the sluice plates. These sluice plates are in short lengths, and are either laid overlapping or screwed down to form a continuous sheet, and are prepared and treated in the same manner as the aprons. Of late years a useful addition is being made to the plates in the form of a shaking plate, of the same width as the aprons, and immediately below them. It is either suspended or on a movable frame, and is given an end or side shaking motion and light grade; for an end shake the motion is imparted by a cam with ⅜ inch stroke, and 200 strokes per minute. The correct strokes for these plates must be determined at each mill by experiment. Their efficiency was demonstrated in one mill, where the pulp passed over two consecutive apron plates, and then to the shaking plate, which accumulated a greater amount of amalgam than the second apron.

Amalgam Traps.—To retain any quicksilver or small particles of amalgam that escape inadvertently while dressing or cleaning the plates, traps are generally placed below the sluice plates, and are made of various patterns. The general idea is for the pulp to drop to the bottom of a deep vessel and flow out at or near the upper edge; in some cases passing over a series of inclined shelves of copper plates during the descent. A simple and very efficient contrivance for an amalgam trap is to suspend a narrow box by one end and attach the opposite end to a rod connected by a pin to an eccentric, through which it receives a gentle shaking motion in the direction of its long side. The tailings are introduced into a stationary box immediately above, from whence, diluted with fresh water, the pulp passes over the top of a partition in an even sheet to the suspended box below. The proper motion for this lower box must be found by experimenting, for which purpose the end of the rod is supplied with a series of holes, to shorten or lengthen the stroke. The motion should be just sufficient to keep the pulp suspended like quicksand, without splashing or caking on the bottom.

Amalgamating.—Quicksilver is charged by hand into the mortars through the throat, at stated intervals, with a small wooden spoon. Automatic quicksilver feeders have been invented that are worked from the cam shaft in such a manner that, at stated intervals, a little cup on a ratchet wheel in revolving dips quicksilver from a reservoir and drops it through a tube into the mortar. This insures absolute regularity; but for some reason they do not find much application in California. Retorted or new quicksilver should be used for charging as well as for dressing the plates. It is a good plan to keep the quicksilver used for these purposes covered with a weak solution of cyanide of potassium.

Quantity of Quicksilver.—To form some idea of the amount of mercury necessary to be introduced when handling an ore, the value of which is not known, a horn spoon test of a weighed quantity is made, and the quantity of gold decided. Gold alloyed with an appreciable amount of silver requires a larger addition of quicksilver than does a purer gold. One ounce of gold of average fineness can be amalgamated with 1 ounce of quicksilver, but for a safety margin an allowance must be made, so that 2 ounces will answer better; and with extremely finely divided gold, 2½ or 3 ounces. If the stamps have a duty of 2 tons each, the amount of mercury requisite to amalgamate the gold contained in 1 ton of ore should be divided into five parts, and introduced at half hour intervals. If the ore be of low grade, the necessary portion may be added every hour; as the value increases the stated intervals for charging should be reduced. The larger proportion of California gold ore receives mercury every half hour.

The skilled millman judges from the condition of his plates as to whether he is charging correctly. He places his finger on the apron plate, and if the accumulated amalgam gives to a gentle resistance, and has a putty-like feeling, the condition is about right; when hard to move he must increase the charge; or if thin, reduce it. The harder the amalgam, the more it assumes a dead-white colour. The matter of correct charging of the mercury requires a constant watching, as on this depends the success of battery amalgamation; hence the ore should be frequently tested with the horn spoon.

Amalgam retained on the inside battery plates weighs heavier for the bulk than the apron amalgam. There is a diversity of opinion among millmen as to how often the amalgam accumulated on the aprons and sluices should be removed. Thus it is found in the California milling practices that aprons are scraped as often as twice a day in some mills, while in others it is allowed to accumulate from one clean-up day to the next, which sometimes means once a month. Personal experiments by the writer, conducted in various mills, invariably showed a yield of more amalgam from the more frequent removal of the accumulations, but as the clean up of the apron would require the cessation of crushing, such frequent stoppages would materially lessen the output. To avoid this, as the upper 18 inches of the apron plate retains about 75 per cent. of all the amalgam on it, this much of the apron plate may be made separate from the rest, and held in place by wooden buttons on the side, so that it can be removed at any time while the battery is at work, and an extra plate provided for the purpose slipped in its place. Once or twice in 24 hours it is advisable to hang up the stamps, one battery at a time, and dress over the surface of the apron plate, sprinkling, if necessary, a little fresh mercury, and brushing it into the adhering amalgam, after which the amalgam should be evenly spread out again. This takes but very few minutes. Frequently when dressing a plate a very fine coating of a brownish or greyish colour can be seen adhering to the surface, which, on the application of the brush, is easily detached and thoughtlessly washed off. If this be examined under the glass, it will be found to contain considerable gold, hence should be gathered carefully in the gold pan.

To remove the amalgam from the plates, the stamps are hung up, the battery water shut off, and the front of the screen and plates hosed off to remove any sand which would scratch the plate. The surface of the plate is softened by the addition of quicksilver until the amalgam moves readily. Then, commencing at the bottom and working upward, with a piece of rubber or rubber belting 4 inches long with square edges, the amalgam is pushed ahead to the upper end of the apron, gathered in a heap, and transferred to a pan or bowl by means of a scoop. The amalgam is taken to the clean-up room for further cleansing.

Where the amalgam has been retained on the plate for any length of time, as during an entire run, it requires a chisel or case knife to remove it thoroughly, care being taken not to scratch the plate. In scraping a plate it is not advisable to remove ("skin") all the amalgam; enough should be left to form a thin coating when ready to commence crushing again.

All mills experience more or less loss of quicksilver, partly through careless handling in dressing the plates, but also from the "flouring" of the mercury (breaking up into minute globules) after charging in the battery. This loss is extremely variable in the different mills, depending on the nature of the ore, high discharge, and low temperature of the battery water. Ores carrying much talc, black oxide of manganese, galena, or arsenical pyrites cause a good deal of flouring of the mercury. A further cause of loss is through incomplete retorting, a certain amount of mercury being retained in the bullion, which is volatilised in the subsequent melting. One half ounce to the ton of ore may be taken as near the average loss for California mills, although in a few cases these figures are doubled.

As the amalgam retained in the battery is less liable to loss than that portion adhering to the outside plates, the aim of the millman is to retain the largest proportion inside the screens. The coarseness of the gold has a good deal to do in this direction, as well as the splash and height of discharge. In some mills as high as 80 per cent. of the total yield of the amalgam will be found in the battery; it is always greatest, with the same grade of gold, where the most copper plate surface is found inside the battery. The average proportions of amalgam retained in this country may be stated as two-thirds in the battery, as against one-third on the (outside) plates, depending, of course, on the character of the gold in each district.

As the proper condition of the mercury is a matter of importance to the millmen, it is well to become familiar with its different phases. Pure mercury is bright, quick, and does not change its appearance on exposure to the air at ordinary temperature, but evaporates slightly. As the temperature decreases it becomes stiffer, and at low temperature assumes a more leaden appearance; in raising the temperature it becomes more liquid. At 60° Fahr. it emits vapour sufficient to discolour a bright piece of gold when suspended over it in a closed vessel. Pure mercury, if dropped into a porcelain dish or on a table, will form into spherical globules, whereas the impure metal breaks into pear-shaped drops, and if very impure the particles drag a tail when moved. If containing lead, a skin of metal will remain on the finger nails when passing the hand through the surface. The introduction of grease or unctuous substances, like clay and talc, incline the metal to separate into extremely fine globules—flouring. Quicksilver is attacked by heated concentrated sulphuric acid, but is not affected by it when diluted. Muriatic acid likewise does not affect it. Nitric acid attacks it and forms nitrate of mercury, a white compound. Quicksilver that has been used in gold milling dissolves and retains a certain amount of gold, which remains with it even after retorting. If quicksilver of this description be left for months undisturbed in a cold place and then carefully poured or syphoned off, a network of fine, needle-shaped crystals of amalgam will be found in the bottom of the vessel, derived from this gold held in solution.

Sodium Amalgam.—As sodium amalgam is frequently added to the quicksilver by millmen, the following method of preparing it is given:—Dissolve small dry chips of clean sodium, freshly cut from a stick, in pure, dry mercury, gently heated in a flask or porcelain dish; add it piece by piece until the mass has attained the consistency of soft putty, which should always be kept dry and well bottled, as it deteriorates rapidly in the air. This preparation is added to the mercury when dressing the plates; and to know when the proper amount has been added, dip a brightened nail into the quicksilver, which will adhere slightly to the edges of the nail if the amount be correct; whereas, if it becomes entirely coated, too much has been used and more quicksilver must be added; on the other hand, if there be no signs of adhesion, more sodium amalgam must be added.

Nearly all commercial mercury needs cleaning. The handiest way is to digest with dilute nitric acid for 24 hours, taking one part of acid to three of water. In retorting foul quicksilver to purify it, the retort should only be half filled and the quicksilver covered with a layer of quicklime or charcoal powder. The heating should then be done very gradually, the retort not being brought to a full red heat.

Cleaning Up.—When ready to clean up a mortar, the feed of ore is shut off, and the speed of the stamps reduced until as much of the sand, &c., as possible has been discharged and iron strikes on iron. The battery water is then shut off, the self-feeder pushed back, the stamps hung up, the splash-board or canvas removed from in front of the screen, and the face of the latter washed off with the hose. The aprons and plates are then scraped, and the aprons, if fixed, covered with planks near the mortar, to protect them while working around the mortar. The keys that hold the screen in place are withdrawn, and the screen frame loosened and slightly raised, permitting the water that is still retained in the mortar to gradually run out; a too sudden raising of the screen frame from the chock block would cause the water to escape in a body, and possibly wash amalgam from the plates. After raising the screen out of the grooves, the chock block and inside plates are removed and all of them carefully washed over the apron, scraped, and set to one side or removed to the clean-up room for treatment. The sand mixed with ore on and around the dies is taken out by trowels and passed through some other mortar, or retained to place around the dies when returned to the mortar. The dies are broken out of their beds with the help of chisels and crowbars; when the centre or end die has been successfully worked loose, the remaining ones are easily taken out, washed, examined for any adhering amalgam (which is scraped off) and placed on the floor in the same order they occupied in the battery ready to be replaced. The remainder of the material in the mortar is then easily removed, and placed in the clean-up barrel; in small mills it is panned in a water box provided for the purpose in the clean-up room. In the revolving clean-up barrel, pieces of quartz or old iron, with an additional amount of quicksilver, are added, and the barrel is half filled with water, where it is left revolving for a couple of hours. As all battery sands contain more or less nails and chips of iron and steel, these are removed by a magnet while panning out. The clean-up barrel is discharged through a man hole into a bucket placed over a riffled sluice. The bulk of the quicksilver and amalgam is retained in the bucket, and the overflow passes into the sluice.

(*To be continued*).

THE following companies have removed to 34 and 36, Gresham Street from 9, Tokenhouse Yard:—Carrington Gold Mining Company (Limited); Forrest King of Coolgardie (Limited); Golden Gate Gold Mining Company (Limited); Lady Emily Gold Mining Company (Limited); Lady Loch Gold Mine (Limited); Queensland Smelting Company (Limited).

REVIEWS.

Aluminium. (The Aluminium Supply Company, Manchester.)

We have received the above pamphlet, issued apparently by the Pittsburg Reduction Company, in which the various physical and chemical characteristics of aluminium and its applicability to innumerable purposes are duly set forth. We must protest energetically against the attempt here made to introduce the barbarous unmeaning contraction "alium" in the place of the proper name of this metal, although we do not for a moment suppose that the attempt will be successful. Even though time may be money, most men will willingly sacrifice a little, and such a little, in the interests of literary accuracy.

The leading physical properties of aluminium have been fully and apparently accurately recorded here, its lightness—about one-third the weight of iron, bulk for bulk—being, of course, very prominently insisted on. Its strength under various conditions of stress is given in a series of tables, though its extreme weakness under transverse tests is only just referred to; it is this want of rigidity in aluminium, its softness, to use the every-day expression, that forms one of the greatest drawbacks to its extended use, and causes no little difficulty in working it. Energetic efforts are being made to overcome this defect by alloying it with other metals, but these, though they have resulted in some improvements, have not yet been crowned with a full measure of success; so far nickel, silver, and titanium are the metals whose alloys with aluminium seem to have given the most promising results.

As regards its thermal properties, the melting points of pure aluminium is here given as 654° Centigrade, or about half-way between lead and silver. Its latent heat of fusion and its specific heat are both very high, so that it requires a relatively great quantity of heat to melt it; its conductivity for heat is moderately high—about one-third of that of silver; and this is an advantage for certain purposes. The linear expansion, and, therefore, the shrinkage of aluminium, is very high; the latter is given at 17-64th of an inch to the foot, an amount that would prove a source of considerable difficulty in making castings.

The various alloys of aluminium are treated of at some length, and, upon the whole, with much accuracy. It is, however, a by no means universal experience that aluminium added to cast-iron increases the fluidity of the latter metal; some founders have noticed quite the opposite result. Several alloys of aluminium with other metals are, indeed, noticeable for their very high surface tension, which makes them run very "ropy," and makes pouring them a matter of some difficulty. A good account is given here of that beautiful alloy aluminium bronze, though we regret to see that the name of its original discoverer—Dr. Percy, who first produced it many years ago—is not referred to.

Upon the whole, although avowedly produced and circulated as an advertisement, and with the object of bringing into public notice the valuable properties of aluminium in general, and of those forms and combinations in which the Pittsburgh Reduction Company manufacture it and put it on the market, this little pamphlet is honestly written, and has collected into a convenient form an amount of scientific information with a degree of accuracy that we have often found wanting in far more pretentious productions.

Engineering Estimates and Cost Accounts. By Francis G. Burton. (Published by the Technical Publishing Company, Manchester.)

The preparation of accurate estimates is, perhaps, one of the most difficult tasks which falls to the lot of the engineer, especially when we consider the keen competition between the English mechanical engineer and his foreign rivals. The book under notice is a very careful synopsis of the most modern practice in machine shops, and though from our point of view we could have wished that mining machinery had been noticed, yet the general plan on which accounts of this nature should be dealt with is so clearly described that its utility cannot be questioned

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Tabulated Weights of Angle, Tee, and Bulb Iron and Steel. By Chas. H. Jordan, M.I.N.A. (London: E. and F. N. Spon.)

The fifth edition of this work lies before us, and it is replete with tables and calculations on the weights of iron and steel of all shapes and sizes designed with a view to lighten the labour of both engineer and draughtsman, especially those engaged in shipbuilding. Since the publication of the first edition the author has carefully brought his tables up to date, as necessitated by the introduction of new materials and new forms of manufacture. His work is the result of much patient labour, involving a mass of calculations which we hesitate to think of, as the columns upon columns of figures worked out to fractions of an inch are bewildering. We feel sure that the author has earned a well-merited reward by lightening the labour of others, while the number of editions would testify to the usefulness and popularity of his work among those engaged in the manufacture and application of iron and steel to constructive purposes.

TIN TICKETING.

THE fortnightly ticketing for tin ores was held at Tabb's Hotel, Redruth, on Tuesday. Result:—

VALUES OF ORES SOLD FROM EACH MINE.

Mines	Tons	cwts.	Per ton. £	s.	d.	Value. £	s.	d.
Dolcoath No. 1	14	0	37	10	0	525	0	0
do No. 1a	14	0	37	10	0	525	0	0
do No. 1b	12	0	37	12	6	451	10	0
Wheal Grenville A	18	0	38	7	6	690	15	0
do B	15	0	38	12	6	579	7	6
do No. 2	4	0	22	17	6	91	10	0
East Pool A	14	0	29	2	6	407	15	0
do B	14	0	29	12	6	414	15	0
do No 2	1	10	11	15	0	17	12	6
Tincroft	11	0	31	12	6	347	17	6
do	11	0	30	15	0	338	5	0
Basset Mines No. 1	10	0	39	2	6	391	5	0
do No. 1a	10	0	38	15	0	387	10	0
Carn Brea No. 1	8	0	32	7	6	259	0	0
do No. 1a	8	0	32	7	6	259	0	0
do No. 2	1	0	21	15	0	21	15	0
West Kitty	13	0	38	12	6	502	2	6
Killifreth	12	0	36	15	0	441	0	0
Phœnix United	10	0	37	15	0	377	10	0
South Condurrow	7	0	38	7	6	268	12	6
Wheal Kitty	6	0	36	10	0	219	0	0
	213	10				£7516	2	6

AVERAGE PRICE PER TON, £35 4s. 1d.

AVERAGE PRICES PER TON.

February 11	£35 11 11	March 10	£35 5 10
February 25	35 15 8	March 24	35 4 1

The offices of the DUAL SYNDICATE (LIMITED) have been removed to 3, Clement's-lane, Lombard-street, E.C.

THE EXTRACTION OF SILVER, COPPER, AND TIN.

AT the ordinary meeting of the Institution of Civil Engineers, held on Tuesday, March 17, three papers were read dealing with the above subjects.

The first paper was on "The Lixiviation of Silver Ores," by Mr. John H. Clemes, Assoc. M.Inst.C.E. In the lixiviation process of extracting silver the ores were roasted in admixture with sodium chloride, for the purpose of converting the silver salts into silver chloride, and, after being cooled, were leached with water for the removal of soluble impurities. They were then lixiviated with a cold dilute solution of sodium or calcium hyposulphite, the latter solvent being used in Mexico. In this lixiviation the silver chloride contained in the ore was dissolved; and, by the addition of calcium sulphide, the silver was precipitated as a sulphide, which was dried in filters and was reduced to the metallic condition by fusion or by cupellation. The plant for the lixiviation process comprised machinery for breaking and pulverising the ores; roasting furnace; leaching and precipitating vats; and apparatus for treating the final product.

In northern Mexico the ores were almost always ground in a dry stamp mill. In the 40 stamp mill at the Yedras mines, the ore—much of which arrived partially broken from the picking floors—was fed into two rock breakers in the upper part of the mill, and from them dropped into the ore bin, through sliding doors in the bottom of which it was run into cars. The Yedras mines were situated about five days journey from the coast, in a spur of the main Cordillera, at an altitude of more than 7000 feet above the sea level, and all freight had to be carried to them on pack animals. The battery posts were made of thoroughly seasoned timber. The feed side and the front of the batteries below the line of the braces were unobstructed, so that the automatic feeders, the mortars, and the pulp conveyors were readily accessible. Instances of the employment of the double mill for dry stamping were to be met with; in this type of mill two parallel lines of battery posts were set facing each other, and were united by heavy tie-beams braced one against the other. This mode of construction gave a strong and steady battery frame; but for dry-crushing purposes it was attended with disadvantages.

The best weight for stamps appeared to be between 950 lbs. and 1000 lbs., when, as was nearly always the case, the preliminary breaking of the ore was limited to passage through a rock-breaker set to crush to 1¼ inch to 1¾ inch. Whether the practice of breaking the ore to a much smaller size before feeding it into the batteries, and of using light stamps for the final pulverisation, would sufficiently improve the physical condition of the pulp to justify the increased complexity of the mill was a matter worthy of investigation. In one or two instances where a somewhat coarse grade of crushing sufficed, roller crushers had been used in Sonora for grinding ores. The results obtained had, however, not been entirely satisfactory; in one or two excellently built mills, the crushers, when submitted to the test of continuous hard work, had failed to supply the furnaces with the amount of fine meal required of them. The roll crusher, although without a rival as a reducer of ore to a small gravel size, had but a limited capacity when used as a fine pulveriser. So that if roll crushers were to be successfully employed for the production of fine meal, for such purposes as those of the leaching process, the principle of graduated reduction in a series of machines must be more thoroughly applied. In view of the wear and tear of the rolls and sieves, it was doubtful whether any cheapening of the operation of crushing would be brought about by substituting rolls for stamps; the advantage to the lixiviation process would be the improved condition of the crushed ore, both for chloridising purposes and for the filtering vats.

The chloridising roasting was the most important and expensive part of the manipulation. It was usually carried out in long reverberatory furnaces, divided into several hearths. In the cooler parts of the furnaces, a large part of the sulphides was converted into sulphates, and, in the hotter parts, the chlorine necessary for the chloridisation of the silver salts arose from the mutual decomposition of these sulphates and the common salt added to the charge. The chief requisites for good roasting were carrying out the operation in a highly oxidising atmosphere, and at the lowest practicable temperature. When ores were roasted with an insufficient supply of air, reactions occurred in the roasted mass after discharge from the furnace, and particularly after being washed with water, which interfered with the extraction of the silver. The loss of silver which occurred in roasting was affected more by the temperature at which the operation was carried out than by any other influence. The ore was leached in large circular vats. The first leaching with water had to be thorough, since any soluble impurities which were not removed entered the chemical solution used in the second leaching. The solvent employed in the second leaching or lixiviation was a dilute solution of calcium hyposulphite. Operations at new works were begun with a solution of sodium hyposulphite, the strength employed being 10 or 15 parts of the crystallised commercial salt in 1000 parts of water.

The rate of filtration in the vats depended on the physical condition of the ore pulp, so that the mechanical preparation of the ore had to receive special attention; the pulverised ore should be in the condition of fine meal, as free as possible from dust. When base and refractory ores were treated, rapid solving with dilute solutions was very desirable; under these conditions a minimum quantity of the salts of the base metals was extracted with the silver. Besides silver chloride, various salts of silver, such as silver antimonate and silver arsenate, were partially or wholly soluble in solutions of hyposulphites. The precipitation of the salts dissolved by the hyposulphite solution was effected by a strong solution of calcium sulphide, which should be freshly prepared as needed. At places where caustic soda was readily obtainable there was good reason to believe that the earlier practice of using sodium hyosulphite as solvent and sodium sulphide as precipitant was more economical. The precipitate obtained from pure ores was often converted to the metallic condition by fusion in crucibles with scrap iron and borax. The product from base ores was, however, largely mixed with impurities, and was refined in German refining furnaces. Furnaces of ample dimensions were used in order that the sulphides might be mixed with a large amount of litharge. The rich lead obtained was refined in an English test furnace. The precipitation was sometimes so conducted as to furnish two grades of sulphides. The precipitate, rich in silver from the earlier stages of leaching, was treated by fusion or cupellation, and the poor variety, from the later stages, was shipped to smelting works. The process successively treated a wide range of ore which contain too much impurity to be reducible by roasting and amalgamation. The cost of working either process was much influenced by local conditions, but if the nature of an ore was such as to require a chloridising roasting, the silver contained in it could be more cheaply extracted by a solution of a hyposulphite than by means of mercury. Ores which contained a small percentage of copper were treated by the Patera process with excellent results, and the rapidity with which the use of the process was extending in Sonora was partly due to the fact that nearly all the silver ores found in that State were accompanied by some copper mineral.

Considerable loss of silver took place in the operation of chloridising roasting. The fine ore dust which escaped from the furnaces was mostly recovered, but a large portion of the fume escaped. The flues which conducted the furnace gases from the furnaces to the stacks were generally too small in sectional area. The current in them was too rapid, and the fume had a poor chance to settle. For the development of the process the reversal of this state of things was to be desired. In reduction of cost, as distinguished from the avoidance of loss, the greatest room for improvement occurred in the roasting. The more extended use of furnaces in which the stirring of the ore was effected by mechanism, or the adoption of reverberatory furnaces of very large dimensions, would undoubtedly decrease the cost of this part of the operations.

The second paper, by Mr. C. F. Courtney, M.Inst.C.E., was on "Mining and Treatment of Copper Ore at Tharsis, Spain." The Tharsis Mines were of great antiquity, and their history could be traced even so far back as the stone period. The property of the present company, which was formed in 1866, consisted of six lodes at Tharsis, the main establishment, the Calanas lode, 18 miles distant, and the Laquanazo Mine, 5 miles distant. These lodes formed part of the great deposits of cupreous iron pyrites enclosed within a zone of clay slate, between 110 miles and 120 miles in length, extending, in a north-westerly direction, from near Seville into Portugal. The masses of ore were of great size and of a lenticular form parallel to the enclosing slate. The upper portion contained as much as 3 per cent. or 4 per cent. of copper, while at a depth of about 350 feet the amount diminished to ½ per cent.

Three methods of mining had been employed. By the pillar-and-stall system about one-third of the mass could be extracted without the necessity of supports, the ore being very compact. Each floor was 33 feet high, and parallel galleries were driven through the lode 16 feet high by 16 feet wide, and 33 feet from centre to centre. The partitions were broken through in stalls 15 feet wide and 33 feet apart, the stall of one partition facing a pillar in the opposite partition. A fall of not less than 1 in 500 was allowed in the direction of the shafts to which the ore was drawn by mules, in wagons of 1 ton capacity, along a 2-foot line. The large amount of ore left in the lodes after working had led to the adoption of the second method, that involving the removal of the overlying rock. The open casting of the lodes had been in progress many years, and the amount of material removed from the surface of one lode in one year had reached 654,000 cubic yards. The overburden was divided into floors, 33 feet high, leaving a slope of 60° and a bank 13 feet wide; the average batter was thus 45°, allowance being made for the varying conditions of the footwalls. After the removal of the overburden, the extraction of the mineral was rendered easier. Each miner could blast down 8 tons at a wage of 2s. 8d. per day, as compared with 2 tons in close working at a wage of 3s. per day; while the consumption of dynamite was about 0·10 lb. per ton, instead of 0·18 lb. in underground workings. The third method, which had been adopted in the case of only one of the lodes, was an adaptation of the long-wall system, and permitted the removal of the whole of the ore by underground working. The lode was divided longitudinally by diaphragms in walls, the excavation starting at the lowest level and proceeding upwards between each wall, a space being left equal to its thickness, afterwards to be filled up with loose rock or earth as the overhead extraction continued.

The output from each shaft was between 900 tons and 1000 tons per day, the average depth being 295 feet. The ore was emptied from the wagons by tumblers, and, in order to cleanse the portion intended for exportation, the shoots, set at an angle of 36°, were made in the form of riddles with ¾-inch spaces. The "small," about 17 per cent. of the total weight, were conveyed to the local treatment ground, the ore for local treatment being crushed to the required size by Blake's stone-breakers. The old method of treating the ore was by calcination; the sulphide of copper was converted to cupric sulphate, which could be readily washed out by fresh water. Triangular heaps, 8 feet high, containing about 330 tons, were built, having a series of dry stone flues and chimneys, and with mounds of 90 lbs. of brushwood placed at intervals of 13 feet. These heaps were burnt for about six months, during which time they lost 12 per cent. in weight, 84 per cent. of the copper being rendered soluble. When cold, the heaps were broken open and the ore was conveyed to the dissolution tanks, in which six or seven waters were sufficient to extract the copper. The resultant liquors were passed to a settling pond, to be drawn off as required by the precipitating plant. When the amount of copper in the ore was reduced to 0·20 per cent., the washed ore was removed. By this process between 2½ and 3 tons of iron was used to produce 1 ton of copper, the quality of the precipitate often not reaching 60 per cent.; but it had been found that by passing the liquors from the calcined ores over the crude "smalls" as a filter, the ferric sulphate readily turned to ferrous sulphate as the copper was taken up, and the consumption of iron in the precipitation had been thus reduced to 1¼ ton per ton of copper, and the quality of the precipitate raised to 80 per cent.

To prevent the evolution of fumes of sulphurous acid gas, a process of natural oxidation had been at work for four years, the ore being treated, in heaps of large area and not more than 33 feet deep, on a site laid out in a network of dry stone culverts for ventilation and drainage. Oxidation was encouraged by intermittent washings with fresh water, and the temperature of the mass rose to its maximum of 120° F. in six months. From ores containing about 1¼ per cent. of copper, 45 per cent. could be washed out in the first year, 20 per cent. in the second, and 10 per cent. in the third. The quantity of water required was 440 gallons per ton of ore for the first year, 220 gallons for the second year, and 110 gallons for the third year. If the amount of ore laid down for treatment each year were constant, during the third year the largest consumption of water would take place. As not less than 250,000 tons of ore were annually placed under treatment, besides 300,000 of cupriferous schist, large storage reservoirs were required to enable the work to be carried on without intermission during the dry season, which fell between the months of June and October. Provision had, therefore, been made in Tharsis alone for the storage of upwards of 572,000,000 gallons of water brought to the reservoirs by many miles of catch-water drains.

The copper was precipitated from its liquor by passing it over pig iron laid in a double layer in canals of creosoted timber, 2 feet 9 inches wide, with a depth of 9 inches. If the fall of the ground permitted, about half the total length was laid with a fall of not less than 1 in 200, a quarter of the length following with 1 in 100, and the remainder with 1 in 50. This arrangement permitted of a gradually increasing agitation of the liquors as they advanced and became poorer in copper, thereby improving and enriching the precipitate produced. The copper was almost precipitated. The annual production of the metal by the company amounted to about 10,000 tons. The mines at Tharsis were connected by a 4 feet gauge railway with the port of embarkation, where provision was made for the storage of 30,000 tons of ore to ensure the continuous loading of vessels in which it was exported to Cardiff, New-

castle-on-Tyne, Glasgow, and other ports for the production of sulphuric acid; being afterwards returned to the works of the Tharsis Company for the extraction of copper, silver, and gold.

The third paper, by Messrs. John McKillop and T. Flower Ellis, F.C.S., on "Tin Smelting at Pulo Brani, Singapore," gave an account of the first successful attempt of a European company to compete with the Chinese in smelting the alluvial tin ore of the Malay States, the deposits of which had long formed the chief source of the metal. The works of the Straits Trading Company were situated on Pulo Brani Island, about 3 miles to the south-west of Singapore, and they covered an area of about 8 acres. The greater part of the ore was bought by the company's officers in various parts of the native States, and was shipped to Pulo Brani, where a wharf was provided for its reception. The subsequent treatment of each parcel of ore, which was weighed on arrival, was determined by assay. The quality of the tin produced depended largely upon that of the ore smelted; and, in order to throw some part of the duty eliminating the impurities upon the miner, the price of the ore was made to depend not only on the amount of metallic tin it contained, but upon the nature of the impurities present, which consisted chiefly of mispickel, copper pyrites, and iron pyrites. An incredibly small amount of arsenic, sulphur of copper, was sufficient to render the resulting tin useless for all purposes except the manufacture of inferior solder. Ores containing arsenic or sulphur were, therefore, roasted at least once in a furnace of the "blind roaster" type, and those containing copper were allowed to stand for a considerable time between the roastings to allow the copper sulphate to drain off. Unless of very poor quality, in which case it was treated with tailings, the ore when sluiced gave good headings, which could be at once smelted, coarse tailings, which required to be crushed, and fine tailings, which were caught in boxes at the tail of the sluices. The charges were mixed from bins containing ores of known values, and their assays were thus maintained constant. Welsh anthracite or culm was used as a reducing agent; and drosses, sweepings, skimmings, &c., were mixed in the ore charges in such ratio as to keep them down in quantity and prevent accumulations.

The furnaces were of the ordinary reverberatory type. Their distinguishing feature was the method by which the difficulty accruing from the leakage of the molten metal had been overcome. A vault containing 8 feet of water had been introduced below the bed of the furnace, and in it any tin which escaped was granulated, and its further passage checked. The vault was pumped dry once a week and the granulated metal recovered. The furnaces were constructed so that the bed-lining and the roof could each be separately replaced. The bed was of fire bricks with ground faces, forced tightly together by screw jacks to make the joints, and was carried by rails supported at their outer ends by the walls of the furnace, and at their inner ends by a heavy iron rail placed longitudinally along the centre line. The longitudinal rail was divided at the middle, where the inner ends of the two sections were carried upon a brick pillar, by the removal of which alone the whole of the bed could be caused to collapse when its replacement became necessary. The flote into which the metal ran when the furnace was tapped was of wrought iron or steel lined with fire brick, and, on account of the difficulty in preventing it from leaking, the water vault had been extended below it, with good results. The bed and walls of the furnace having been fettled where necessary with a moistened mixture of bauxite and fire-clay, and the fettling glazed by hard firing for about one hour, the damper was closed and the charge was thrown on the bed through the side doors. The doors were then closed and the fire made up as large as possible. Meanwhile, the next charge was tipped under the charging doors, and the slag beds were prepared for the reception of the slag. After three successive firings, the charge having been rabbled to ensure that all was loose from the bed, the tapping bar was withdrawn, and a stream of tin ¾ inch in diameter escaped into the flote. The channel from the tap hole was then altered to deliver over the slag beds, and when all the slag had been run off, the tap hole was closed and the furnace recharged.

The metallurgical processes employed consisted of:—Smelting ore, with the production of rich slag and "ore metal;" smelting rich slag, with the production of poor slag and "rough metal;" treatment of poor slag containing tin as prill; and refining the metallic products of the three first operations. For smelting ore the charge was made up by mixing it with about 14 per cent. of culm or anthracite, and about 3 per cent. of refinery dross, and the time required for smelting was about 8 hours. From a 4 ton charge of such composition, about 47 cwts. of metal, containing about 99¼ per cent. of tin, and about 29 cwts. of rich slag, containing about 35 per cent. of tin, would be obtained. Rich slag could be smelted with excess of scrap-iron to produce "hardhead" and poor slag, or with culm and sufficient iron to decompose the tin silicate. A combination of these methods was also used, by which hard head was first produced by excess of iron, and was subsequently smelted with more rich slag. The rough metal dross containing iron oxide and tin oxide, resulting from the refining of the metal from slag, had to be worked up continuously; the rich slag was, therefore, smelted with culm and rough metal dross, producing rough metal and poor slag; or rough metal dross was used to replace hardhead in the second process. The recovery of the prill was effected by remelting the slags and allowing the metal to sink to the bottom of the liquid charge. Liquation was the method principally adopted for refining, but boiling was sometimes resorted to under special circumstances. The liquating furnace was a rectangular chamber with a fire at each end, the smoke leaving by a chimney in the centre of the arch.

LEATHER BELT CROSS SECTION NEEDED.—This useful table, published by the *Scientific American*, shows what area of cross section of leather belt is needed to give various horse-powers, with various arcs of contact on cast-iron pulleys, at a belt speed of 3000 feet per minute, the fastenings being single leather lacings. From it, having decided on the thickness, the width may be determined, or *vice versa*, by simple division.

Arc.	Horse-powers.									
	5	10	15	20	25	30	35	40	45	50
Deg.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.	Sq. in.
30	0·90	1·79	2·68	3·58	4·48	5·37	6·27	7·16	8·06	8·95
45	0·63	1·26	1·88	2·51	3·14	3·77	4 40	5·02	5·65	6·28
60	0·49	0·99	1·48	1·98	2·97	2·96	3·46	3·95	4 45	4·94
75	0·41	0·83	1·24	1·64	2·07	2·49	2·90	3 28	3·73	4·14
90	0·36	0 73	1·09	1·45	1·82	2·17	2 55	2 91	3·26	3·64
105	0 33	0 65	0 98	1 31	1·63	1·96	2 29	2 61	2·94	3 27
120	0·30	0·60	0 90	1 20	1·50	1 80	2 10	2·40	2·70	2·99
135	0·28	0·56	0 83	0·11	1·39	1·67	1·94	2·22	2·50	2·78
150	0 26	0 52	0·78	1 04	1·30	1·56	1·82	2·09	2·35	2·61
165	0·25	0·50	0·75	0·99	1·44	1 49	1·74	1·99	2·24	2·49
180	0·24	0·47	0·71	0·95	1 20	1·42	1·62	1·90	2·13	2 37
195	0 23	0·46	0·68	0·91	1·14	1·37	1·60	1·83	2·05	2·28
210	0·22	0·44	0·66	0·88	1·10	1·32	1·54	1·76	1·98	2·20
240	0·21	0·42	0·62	0·84	1·05	1·25	1·46	1·68	1·87	2·09
270	0·20	0·40	0·60	0·80	0 99	1·20	1·49	1·60	1·80	1·99
300	0·19	0·39	0·58	0·77	0 97	1·16	1·35	1·54	1·74	1·93

MEETINGS OF MINING COMPANIES.

LONDON AND WEST AUSTRALIAN EXPLORATION COMPANY, LIMITED.

The statutory meeting of the shareholders in the London and West Australian Exploration Company (Limited) was held on Tuesday, at Winchester House, E.C., Lord ROBERTS presiding.

The ASSISTANT-SECRETARY (Mr. Thos. W. Wellsted) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This meeting, as all you shareholders of the London and Western Australian Exploration Company are aware, is the first meeting of the new company, and is held in compliance with an Act of Parliament, which requires that a general meeting of any new company shall be held within four months of its registration. The circumstances of the reconstruction of the company are too well known to call for repetition; it will suffice to say that the reconstruction has been carried out strictly in accordance with the recommendations of the directors, as contained in their last report to the shareholders of the old company. The whole of the capital of the old company was returned to the shareholders on December 24 last, the shares in the new company were allotted, and the certificates for the same were ready for delivery by January 15. Gentlemen, since the formation of the new company we directors have taken every opportunity of securing to it, and of extending, as far as in our power lies, the high reputation which the old company had gained for itself in Western Australia. We have had prospecting parties out in various districts, and, in conjunction with the London and Western Australian Investment Company (Limited) and the Continental and Western Australian Trust (Limited), we are about to establish agencies at Hannan's, Lawler's, and Dundas, in addition to our existing agencies at Perth, Coolgardie, and Cue. The company will thus have an organisation unequalled in the colony, and will be in a position to promptly obtain options in the best properties for inspection by the company's engineers, Messrs. Bewick, Moreing, and Co., and to acquire any such properties as are likely to prove desirable holdings. Gentlemen, as you are aware, the company has secured prospecting rights over the whole of the lands of the Hampton Plains Estate (Limited), some 1¼ million acres, and upon which a large number of blocks have been already pegged out. The directors have recently, in addition, taken options of several promising leases at Hannan's. Development upon all these claims is proceeding, and, so far, with excellent results. The splendid machinery at the Hannan's Brownhill Mine—a mine which this company promoted, and in which it is still largely interested—has, after considerable delay in transit, been erected, and crushing has just commenced. The machinery at the mines of the Great Fingall Reefs (Limited) and the Menzies Gold Estates (Limited) is now well on towards completion, and crushing returns of a favourable character are being regularly received from the Consolidated Murchison Gold Mines. Gentlemen, all the mines I have just mentioned are, I am glad to be able to inform you, likely to prove among the best in the colony. As was foreshadowed in the directors' last report to the shareholders, the Great Eastern claim and the True Blue claim in the East Murchison gold field have now been amalgamated in one company, under the name of the East Murchison United (Limited), and recent developments in every way bear out the favourable opinions previously formed of these properties. Most of the machinery is already at the mine, and crushings may be expected to begin at an early date. The directors, some months ago, obtained an option of another property in the East Murchison gold field, known as Martzy's property, consisting of the Siege of Paris, Normandy, and Martzy's Reward claims, near Mount Sir Samuel. A careful examination of these claims proved so satisfactory, and showed such rich prospects, that, in conjunction with the London and Western Australian Investment Company (Limited), the directors considered it advisable, in the interests of the Exploration Company, to acquire them. Another mine of which the directors formed a high opinion is the Cue 1 Gold Mine, in which they secured a portion of the underwriting of the capital. Professor Schmeisser, the German Government expert, has reported very favourably upon this mine, of which he says:—"I do not hesitate to consider the mine one of the best properties in the Murchison district." This mine is crushing regularly with good results, and an extra five head of stamps, in addition to the present machinery, has been ordered for it. Under their working arrangement with the London and Western Australian Investment Company the Exploration Company participates also with that company in some more permanent investments, such as sites for towns and buildings at Hannan's, at Menzies and Cue, &c. Our company has also taken an interest, to the extent of £6000, in the Melville Water Park Estate (Limited), which was formed to acquire a magnificent estate of 4500 acres, with an extensive deep water frontage on the Melville Water, opposite Perth. This estate offers many advantages as a residential locality, as well as for wharves, factories, railway depots, &c. Jetties are already being built, a passenger steamer service with Perth is being arranged, and the development generally is actively proceeding. In addition to the above, the new company holds very large interests in numerous other undertakings acquired by the old company, on terms which show a very handsome profit. It has, in fact, largely extended its organisation in Western Australia, and with able representatives at every place of importance, the new company will keep well to the front, and be prepared to engage in any undertakings that may appear really sound and likely to be profitable. Gentlemen, as you have already been informed, Professor Schmeisser was commissioned to visit Western Australia, on joint account of this company and the London and Western Australian Investment Company, and it is gratifying to your directors to be able to tell you that the professor's investigations have entirely confirmed the good judgment of the company's engineers and agents in the selection of the properties in which interests have been taken. Although not a Western Australian undertaking, your directors did not feel justified in refusing the opportunity offered to them of participating in the flotation of the Lyndhurst Gold Field (Limited), which company was formed to exploit the remarkable gold deposits at Lyndhurst, New South Wales. The formation there is of a character much resembling that of the Rand, both in the size of the reefs and the uniform quality of the ore, vast quantities of which merely require quarrying without the expensive sinking of shafts usually found necessary. The company holds a considerable interest in the shares of this undertaking, which, it appears likely, will yield steady dividends for many years to come. The Australian colonies take first rank among the gold producers of the world, and, considering the richness of the ore, especially in Western Australia, as compared with that of the Rand, they are likely to retain the premier position. People are now flocking into Western Australia in such numbers that all the departments of the public service are congested with work. The Colonial Government are fully alive to the responsibility thus suddenly forced upon them, and, while doing all in their power to foster and encourage enterprise, they are making every effort to keep pace with the rapid development of the country, more especially in regard to the extension of railways and water supply. Gentlemen, before bringing to a close the account of the manner in which your directors are carrying on the work entrusted to them, I desire, on their behalf, as well as my own, to express our appreciation of the ability and energy of our representatives in Western Australia, to whom, in a large measure, the success achieved by the London and Western Australian Exploration Company is due. It is also a pleasure to me, gentlemen, to make known to you the confidence which we repose in, and the value we set on, the services of a manager of such repute as Mr. C. Algernon Moreing. I welcome Mr. Moreing back after his much-needed and well-earned two months' holiday—determined, I feel sure, to continue his arduous task with the same earnestness and intelligence that characterised his management of the old company, and to make the new company a no less successful and profitable undertaking. (Applause.)

Mr. HUMPHREYS said that at the end of last year, when the old company was about to be reformed, the shares stood at 6½; to-day the new shares stood at 2. That was a great difference in price, and represented, even when the dividend was deducted, a fall of 25 per cent. Of course, every man had a right to buy and sell his shares just as he liked, but it was well known that 90,000 of the new shares had gone to the deferred shareholders, and he thought the price of the shares of a company with such glowing prospects as this company had would not fall in the way it had done unless there were a constant supply. He did not know from what source that supply might have come, and would, therefore, ask whether those who had held such a large number of deferred shares had sold them to any great extent. He next wished to urge that the directors would issue interim reports from time to time, and he did that on the ground that the directors' interests were also the interests of the shareholders. The directors were credited with having reliable information from Western Australia, and he thought that in a company such as theirs, which was highly speculative, as all exploring companies were, the shareholders should be constantly furnished with information touching the properties in which they were interested. The Chairman had told them their company was associated with other companies. He (the speaker) noticed that the directors were associated with several companies, some being of a kindred nature to theirs. Some of these companies were not quite so successful so far as dividends were concerned, as the London and West Australian Exploration Company, and no doubt they need to be worked up in order that the founders might take their large profits. Of course, these gentlemen were entitled to their profit, but he wanted to be assured that no profitable business would be passed on to those other companies which should really go to the benefit of their own company. With reference to Hannan's Brownhill, which was a matter exercising the public mind, he thought the directors might have given the shareholders some information.

Mr. GILBERT ELLIOT asked, with regard to Hannan's Brownhill, whether this company still held the 8000 shares in that undertaking which the Chairman told them at the last meeting they did hold. Also concerning the Hampton Plains, had this company the sole right of prospecting on that estate, or what rights had they?

Mr. MOREING, in replying, said: Gentlemen—In the first place, I should like to thank Lord Roberts for the extremely kind way in which he referred to myself personally, and also to the agents of the company in Australia, and I have to thank you for the kind way in which you received those remarks. Mr. Humphreys has asked several questions, to which I think I can give a satisfactory reply. The directors, I am sure, will be able to satisfy him that everything is being done that can be done by any board of directors, or by zealous agents for the interests of the company without reference to any other company that has to be worked up or dealt with in any way whatever. As to the fall in the value of the shares as between the new and the old company, I should like to point out that the fall in the price of shares in West Australia and South Africa has been general. If Mr. Humphreys could have told us that ours were the only shares that had fallen, then perhaps there might be some special reason to be sought for the fall. More or less, every share in the mining market has had a set-back from the highest prices reached, and I personally am very well satisfied that the shares of this company have remained at such a good level.

Mr. HUMPHREYS pointed out that that was not the question which he had asked. What he wanted to know was whether the 90,000 new shares had been let out in such a manner as to depreciate the market price.

Mr. MOREING: I may tell Mr. Humphreys that the deferred shares of this company were held by a very large number of people. They were held in ones and twos, and there were one or two large holders. I was the largest holder and am still, and I intend to remain so.

Mr. HUMPHREYS: Do I understand you to say that you still hold all your shares?

Mr. MOREING: I hold practically all the shares I did. I may say I have never sold a deferred share in this company.

Mr. HUMPHREYS: I am glad that Mr. Moreing has given us that information. It is very satisfactory, and will be of great use to the shareholders.

Mr. MOREING: On the question of interim reports, I would point out that this company has only been in existence for four months, and this is the first opportunity—at the statutory meeting—that the directors generally take of giving information. They cannot very well issue a circular before the statutory meeting, and, therefore, I think Mr. Humphrey's is a little premature in asking for interim reports yet. As far as the old company was concerned, he will know that the shareholders in that company were kept fully informed by means of circulars nearly every three or four months, and I may say that no company could be better informed of the business that was being transacted than the old Exploration Company. There is no reason why Mr. Humphrey's, or anyone else, should assume that this company is not going to be managed in the same way. In the next place, the same gentleman has thrown out some insinuations that the interests of this company may be sacrificed. I have worked with the board of directors from the inception of the company, and I may say they all belonged at that time to other companies. I have never seen anything myself to lead me to suppose otherwise than that their interests in connection with other companies were of immense value and service to this company in every way, and whenever they have been able to use their interest with other companies it has not been done to the detriment, but to the advantage, of this company. I have every reason to believe from what I know of these gentlemen that that will always be the case. You can rest assured you have a board of directors who are devoted to the interest of the company. With regard to Hannan's Brownhill, some complaint is made that no information was given, but, as far as I know, the directors of Hannan's Brownhill do give information. We are only shareholders in Hannan's Brownhill, and have no power to give you any more information than the directors of that company vouchsafe to give. I have just had put into my hand a telegram received by the directors of that company, which those gentlemen have passed on to me. It reads as follows:—"The new machinery is working well. The barrel amalgamation will be started to-morrow. We have found the vein on the 180 feet level. There are 4000 gallons of water per day in our well." (Applause.) That is the latest information, and it only came to hand half-an-hour ago. Mr. Elliot asked a question with reference to our holding in Hannan's Brownhill, whether it had been reduced since the last meeting. I beg to say that this company has not sold any of those shares.

Mr. ELLIOT: Then we still hold 8000 shares?

Mr. MOREING: That is not the exact figure. We do not hold quite 8000 shares. The Chairman at that meeting did not know the exact amount, and he said he thought it was about 8000. At any rate, the shares we held then we still hold. Now, with regard to Hampton Plains, we do not possess the sole right of prospecting, but we have rights of prospecting together with several other companies all over the estate. It is, like most of the others, a most valuable right. I should like, before I close, to make a few remarks on Western Australia generally, which is a very much discussed subject at the present time. There are, on the one hand, the friends and enthusiasts of Western Australia, and there are, on the other hand, the cold-water people of Western Australia, and the public have not yet definitely formed an opinion either here or on the Continent as to whether Western Australia is the great gold field that some people think it is, or whether it is a fraud. A great number of people are holding off, and we have not yet got the genuine confidence of the whole of Europe in Western Australia, which is what we expect to get. There are several reasons for this hesitancy about the colony. We have heard a great deal with reference to the great want of water, and the inhospitality of the country, the extreme difficulty of transport, the doubt as to the permanence of the veins—in fact, every kind of pessimist has thrown some fresh doubt as to whether these reported riches are in existence or not. Now, we, who have absolute and well-

founded faith in the colony—and I am proud to say I am one of these—have been quietly working to try and prove to the world by results that the colony is a gold-bearing colony of great extent. It is no good dosing people any more with reports, with theories, with cablegrams, and with promises. (Hear, hear.) We have had perfect exemplification of that in other parts of the world. There are some other much-advertised countries where, for the last seven or eight years we have had mining properties—where there have been discoveries of ounces to the ton—by cablegram—(laughter)—but we have never received an ounce of gold from them, and still those fields are very popular; they have been kept up, and are still being kept up, upon promises, reports, and cablegrams. West Australia we have been trying to bring forward by results. That colony, as a matter of fact, is producing, within two years of its virtual discovery, under the most exceptional facilities, such as want of water and transport facilities, 20,000 ounces a month or thereabouts, and we certainly have not had time to get machinery to work. In these far distant places time is required to get machinery erected; mines must be developed, and the sinking of shafts and the driving of levels is very slow work. I think, however, you will acknowledge, if you look well into the matter carefully, that wonders have been done in a short time, and instead of being disappointed at the result obtained to date, you ought to marvel at the wonderful strides made in so distant a colony in such a comparatively short time. Remember that it takes four months before you can get machinery delivered on board ship, and then another four months before you can get it on the mines. Eight months, therefore, elapse before you get it on the ground, and then you have to erect it, and when you come to do that in these distant places there is always something wanting, and it takes two months to get a bolt or a plank from the colony. When you consider those difficulties, and remember the fact that several properties are now crushing, you must be satisfied, and instead of being disappointed at the slowness you ought to give people great credit for the energy and the money that have been expended in getting the results that have been attained to date. At Hannan's Brownhill, for instance, as I have just had the satisfaction of telling you, the machinery has commenced running satisfactorily. Now, it is only 18 months ago that that machinery was designed, and it had to be designed on a completely new principle. We could not use stamps, because we had no water, so we had to design a new system. And after designing it, it had to be carefully built and sent out; and to be able to inform you to-day that within 18 months of conception the machinery is running with perfect ease, and that the system is a success, reflects great credit on the directors of the company, who, without calling upon their shareholders for any new capital, and without halting in any way for one moment in the development of that undertaking, have brought it into full work, and are now showing very favourable results. With regard to the Government of Western Australia, it has been much blamed for not going ahead sufficiently fast. I must say I think the Government of a small colony, like Western Australia, which has suddenly developed in the way we have seen, has done wonders. Yesterday the railway from Perth up to Coolgardie was opened by the Governor of the colony. I do not know whether you can figure to yourselves the enormous difficulties that it has been necessary to overcome to get that railway to Coolgardie in such a very short time. The distance is very great, and the country it traverses is nothing but a desert, and I think the Government, instead of being blamed for what they have done, ought to be eulogised for the way they have supported the mining industry. So great a rush of people and machinery into such an uncivilised and new country is an extremely difficult thing to handle, and we must all be very grateful to the Premier, who has shown himself to be a man of energy and a man of whom we English people ought to be proud. We have been waiting for results, and are just on the verge of getting them, and I want all who are connected with Western Australia to have a little more patience—and only a very little more—and they will be seeing results which, I am sure, will please them greatly. Besides Hannan's Brownhill, I may tell you that Mount Jackson has started its machinery, which is running smoothly and satisfactorily. The Lady Loch in two or three weeks will be starting crushing; at Lawler's (one of the most distant of all camps) the East Murchison United has got machinery on the ground, and it cannot be long before crushing is commenced, and that will be one of the most interesting crushings of all, because it is the farthest point that has been reached in the desert, and, as far as we know, it is almost as rich as Hannan's. You will, therefore, see that we are just now entering upon a new phase with regard to the development of Western Australia. We have got the railways and the telegraphs, and are just entering upon the crushings. There are two points which I mentioned as exercising the public mind, the one being the question of water, and the other the question of the permanence of the veins. The water question, in my opinion, has been settled for all practical purposes. The successful application of the Brownhill system of dry crushing and cyanidation in barrels, together with the plant being driven by means of petroleum oil engines, thus doing away with all the trouble of steam boilers, has rendered it possible now to work mines where the amount of water is extremely limited, and where that water may be salt. The introduction of the Caird and Rayner condenser enables wholesome drinking water to be obtained in large quantities from these horrible salt lakes, and as far as I am personally concerned, and after very careful study, I consider that the question of the water need no longer agitate the minds of shareholders in Western Australian companies. With regard to the permanence of the veins—that is a very important subject indeed, and one which, especially on the Continent, creates a great deal of doubt as to whether these Australian enterprises are going to be permanently paying concerns, or whether they are not mere speculative gambles, and not at all on a par with the deposits and veins in Johannesburg, where gold mining has been taken out of the speculative stage altogether, and has become a sort of manufacturing industry. One knows exactly what the mines will do. The question is whether Western Australia can be looked upon in the same light as an industry, and not as a speculative gamble, which respectable people (—a laugh)—ought to keep out of. The whole question of the permanency of the reefs is at present absolutely unproved. No mines have got down more than 300 or 400 feet, and most of the important mining engineers of the world will only prophesy after the event. If you show them that the vein has gone down 1000 feet they will tell you that is a permanent vein; but until you have shown that they will only tell you it may or may not be permanent—that is all you can get out of them. We have this satisfaction—that the veins in the neighbouring colonies do go down, and, after all, Victoria is only separated from Western Australia by an imaginary line on the map, so that there is no reason whatever why, seeing the veins in Victoria and New South Wales go down 3000 feet, similar veins and formations in Western Australia should not also continue to a great depth. I may say that those engineers who have reported to us are under the impression that there is practically no difference, and consequently we may, I think, look forward with absolute certainty to the industry continuing—at all events, during our lifetime, and probably for many generations after us. Gold mining is absolutely necessary for the world, and we have here a continent which is going to last much longer than our time. That is my opinion, and I am under the impression that anyone who will go into the subject and study it carefully must come to the same conclusion. (Applause.)

Mr. ELLIOT said that, as a practical miner, who had spent many years in Australia, he was assured that there were enormous quantities of gold in this West Australian district, and no mining man could have the slightest doubt as to the permanency of the lodes, which were decidedly true fissure veins. That was not the point that was exercising the minds of investors so much as the question of how to work the ore, and he was very glad to hear a man of Mr. Moreing's eminence and thoughtfulness and capacity say that the water question was done with, and that the dry process was a success. That was a point of enormous importance.

Votes of thanks to the Chairman and Mr. Moreing terminated the proceedings.

THE MYSORE GOLD MINING COMPANY, LIMITED.

The 16th ordinary general meeting of the members of the Mysore Gold Mining Company (Limited) was held at the Cannon-street Hotel, on Tuesday, Sir CHARLES TENNANT, Bart., presiding.

The SECRETARY (Mr. I. Crocker) read the notice calling the meeting.

The CHAIRMAN said: Ladies and Gentlemen—The reports and accounts have been in your hands for some days. I, therefore, presume you will, as usual, take them as read. This being so, I have the pleasure to move—"That the report now presented with the balance-sheet and accounts for the year ending December 31, 1895, be received and adopted," and in doing this I heartily congratulate you upon the successful results of the company's operations during the past year. The report is a record of satisfactory progress, and will be as gratifying to you as it is to your board. When I had the pleasure of addressing you 12 months ago I stated, in regard to the diminution of profit, which took place in 1894, in consequence of the lower yield of the ore, that we believed the falling off was only temporary. The results derived from the past year's operations, I am glad to say, have fully justified that forecast. The development of the mines was carried on uninterruptedly throughout the year, and a large amount of work was accomplished. The superintendent's able and detailed report furnishes full particulars of the operations, you will, as usual, have the advantage, immediately after the conclusion of my remarks, of a still further explanation of them by Mr. Edgar Taylor, who visited the property early last year. I regret to state that Mr. John Taylor is not very well, and is unable to be present to-day. I do not propose to enter into any of the details in connection with that department, except with reference to the reserves. It is very gratifying to us to be able to lay before you so satisfactory a statement in regard to the development of the mines. Large bodies of rich quartz were laid open; this is evident from the fact that the reserves of ore at December 31 last were estimated at 96,613 tons, or 20,063 tons more than at the end of 1894. You will have noticed in our report the statement that nothing has been taken into account in the reserves below the 1060 feet level on Crocker's shoot, although the same has been intersected at the 1160 and 1260 feet levels; in the former 7 feet wide, assaying 2 ounces per ton, and in the latter 13 feet wide, assaying 1 ounce 10 dwts. per ton. These points were not reckoned in at the end of the year, as Mr. Hancock considered they had not been sufficiently advanced. Probably these two levels, when developed, will produce a further 25,000 tons of quartz. The estimated cash value of the reserves, including the 25,000 tons just referred to, is over £620,000, taken at the average yields of the last six months. These figures are sufficient to show you how sound and strong the present position of the company is. The quartz extracted from the mine during the year amounted to 60,654 tons, and the bar gold produced by milling the same was 58,855 ounces; besides this, 38,597 tons of tailings were treated by amalgamation, producing 7180 ounces, and 18,065 tons of tailings were treated by the cyanide process, producing 3452 ounces, the total result being 69,487 ounces of bar gold. This establishes a record for the company, the next highest being 66,499 ounces in 1891. Compared with 1894, there was less quartz crushed by 303 tons, and more tailings treated by 2151 tons, whilst the gold obtained was more by 17,214 ounces. The increase was brought about by the better yield of the ore. This averaged 19 dwts. 10 grains per ton, as against 14 dwts. 12 grains per ton, an increase of 4 dwts. 22 grains per ton; the tailings also yielded 18 grains of gold per ton more. But for the interruption in the milling operations, through scarcity of water, it is estimated that at least 2500 tons of quartz and 15,000 tons of tailings more would have been treated last year, and this would probably have resulted in over 5000 ounces additional gold. It is not expected that we shall suffer in a like manner again; but in order to be prepared against emergencies, arrangements have been made with a neighbouring company for the use of the water from their disused shaft; besides which the directors have under consideration the question of sinking a small shaft in a favourable position, specially for water. It may, perhaps, be as well for me to point out that the scarcity of water felt by this company was not experienced by our neighbours. The elements for some months were exceedingly partial. At Champion Reef—which you know once formed a portion of this company's property—an abundance of rain fell months before our property was favoured. The shortness of the supply felt by this company may, therefore, be looked upon as an exceptional occurrence. As is pointed out in our report, the gross production of 69,487 ounces of gold includes 6000 ounces that had been obtained from the quartz crushed during the latter part of the year, but not included in the monthly results advised by cable. This quantity formed part of the 7000 ounces referred to in the circular issued to the shareholders on February 12 last, and represents what had accumulated to the end of the year, therefore it was placed in the accounts. This accumulation was quite as much a surprise to your directors as it was to the shareholders. Immediately after the receipt of the information, we acquainted you by circular of the facts. It was explained therein that the accumulation was very rapid, in consequence of the high quality of the quartz extracted from the large number of development points in Crocker's shoot. The superintendent evidently did not expect such high results to continue, and in order to provide against violent fluctuations, thought it better to withhold a portion of the produce. In referring to the question in a recent letter received from him, the superintendent says:—"I felt on this side it would be unwise to put up the returns so much at once without feeling secure as to a continuation of similar results for some months at least." I need hardly say that your directors have not the slightest idea or suspicion of anything that was not strictly honourable in Mr. Hancock's action. I say this because many people have ungenerously suggested otherwise. He has been in the employment of Messrs. John Taylor and Sons a great number of years, and is a most capable superintendent; very jealous that the company's interests shall be protected in every way. On this question, however, he has been over cautious, and made a mistake in not informing us earlier of the position of affairs. We have given him definite instructions that nothing must be again kept back, so that you may rely upon the future published returns as representing the exact quantity of gold produced during the month. Now I will refer to the financial part of the year's operations. The amount realised by the sale of gold was £270,911 0s. 8d., which is £67,823 14s. 6d. in excess of the previous year. The total income on revenue account, including rents, interest and transfer fees, amounted to £271,624 19s. 6d., against which was charged the royalty on gold, amounting to £13,410 19s. 3d., and the revenue expenditure in India and England, amounting to £117,612 16s. 4d., this left a balance of profit on the year's working of £140,601 3s. 11d., as against £81,430 14s. 4d. in 1894, thus showing a satisfactory increase of £59,170 9s. 7d. There was an additional expenditure of £4818 19s. 6d. as compared with 1894, brought about by the extra expense in connection with the scarcity of water before referred to, and by the large amount of timbering required to keep the mine secure against accidents. If there had not been this interruption in the milling operations, the cost per ton would, probably not have shown any increase, as the standing charges would have been just the same. I would again assure the shareholders that every economy has been, and is being, exercised with due regard to efficient working. The profit for the year, added to the balance of £853 19s. 4d. brought forward from 1894, made the total divisible amount £141,455 3s. 3d., out of which three dividends were paid—2s. 6d. per share on July 11, 1895, 2s. 6d. per share on November 16, 1895, and a balance of 4s. 6d. per share on the 14th inst. (in all 9s. 6d., or 47½ per cent. per share), absorbing together £118,246 10s. This compares with £62,235, equal to 5s., or 25 per cent. per share paid in the previous year. There are two interesting tabular statements annexed to our report to which I would draw your attention. One shows that the total returns made by the company to the end of 1895 amounted to £1,877,739, and the other shows that the total dividends paid by the company amounted to £900,094, or close upon 50 per cent. of the gross returns. This result, we venture to think, is exceedingly good. The dividends and distribution of profit on the sale of property to the Champion Reef Company have together amounted to £4 17s. 6d. per share on the original capital, which works out at 32½ per cent. per annum for the 15 years the company has been in existence. Since the company commenced to pay dividends 10 years ago the distribution has been at the rate of 48¾ per cent. per annum on the original capital, and, of course, the further issue of shares have had their proportion. The further items written off profits were income tax, £2827 11s. 4d.; depreciation of machinery, &c., £4599 10s. 4d.; and a further amount of £15,000 was carried to the sinking fund, against increase in inventory and unproductive expenditure, bringing that fund up to £65,000. The balance carried forward to the next account was £781 11s. 7d. The capital expenditure for the year amounted to £22,425 5s. 5d., of this sum £13,154 8s. 10d. represents the addition made to the machinery, plant, and buildings, and is, therefore, included in the inventory to the end of the year, and the balance of £9270 16s. 7d. was spent on unproductive work, principally in connection with Ribblesdale's shaft. You are already aware that it has been decided to send out a new battery of 30 heads of stamps. These have not yet been actually ordered, as we are waiting for some particulars from the superintendent. They will, however, be got on with as soon as possible. As stated in our report, the crushing power will not be increased to a corresponding extent immediately these stamps go to work, as the old No. 1 mill will by that time require extensive repairs, and we trust will, after these repairs, become an available addition to our stamping powers. There is one very small change in one of the accounts in the balance-sheet to which I wish to draw your attention. It is in regard to the amount paid for mining rights. The original sum was £55,000. It now stands at £55,010. In the underlease from the Colar Concessionaires Company the last three days were reserved. In order, however, that the company might be placed in a position to negotiate direct from the Mysore Government regarding an extension of our lease, this residue of three days was purchased from the Colar Concessionaires Company for the sum of £5 per day, or, in all, £15. The deed of assignment conveying these days to the company was sent out to India for registration in December, 1892, but such registration was not completed until early in 1893. In the 1893 balance-sheet the £15 referred to was added to the original cost of the property, making the total £55,015. When a portion of our property was sold to the Champion Reef Company some time ago a reservation of days was necessarily made in the underlease, but during the past year we have sold to them that residue for the nominal amount of £5, and that has been taken off the £55,015 before named, leaving the balance of £55,010 as stated in the balance-sheet. The health of the camp has been very good. A large number of people were employed at the mines—viz., 96 Europeans and 2903 Eurasians and natives, making a total of 2999. I may tell you the number of persons employed during last year by the whole of the companies on the Colar field was 13,031, and the death rate per 1000 per annum of employés was 3·7, a remarkably low figure. The actual population of the field is estimated at 30,000. I will now read a cablegram from Mr. Hancock, dated March 23:—"Ribblesdale's shaft. Lode 2 feet wide, assaying 5 dwts. per ton.—1520 feet level north of Ribblesdale's. Lode 2 feet wide, assaying 6 dwts. per ton.—1260 north of crosscut (Crocker's shoot). Lode 4 feet wide, assaying 1 ounce 15 dwts. per ton.—1260 south of crosscut (Crocker's shoot). Lode 4 feet wide, assaying 1 ounce 15 dwts. per ton.—Rise in 1260 feet level (Crocker's shoot). Lode 4 feet wide, assaying 3 ounces per ton.—1260 south of Rowse's shaft. Lode 1 foot wide, assaying 15 dwts. per ton.—1160 north of crosscut (Crocker's shoot). Lode 5 feet wide, assaying 2 ounces per ton.—1060 north of No. 2 crosscut (Crocker's shoot). The lode has pinched out.—750 north of crosscut west of Tennant's shaft. Lode 3 feet 6 inches wide, assaying 12 dwts. per ton.—650 north, McTaggart's shaft. Lode 15 inches wide, assaying 1 ounce per ton.—650 south, McTaggart's shaft. Lode 1 foot wide, assaying 3 ounces per ton.—Winze in the 550 north of McTaggart's shaft. Lode 6 inches wide, assaying 1 ounce 5 dwts. per ton.—550 south of crosscut west at McTaggart's shaft. Lode 1 foot wide, assaying 10 dwts. per ton.—Winze in 550 south of crosscut west at McTaggart's shaft. Lode 1 foot wide, assaying 13 dwts. per ton. No change in other parts of the mine. Expect to complete Ribblesdale's shaft July 31. I estimate return for March between 7800 and 8000 ounces. Reserves increased since annual report was written 12,000 tons.' I think you will have gathered from the reports which you have received, and from what I have just said, that we regard with satisfaction the results of the past year's working, but I may say that satisfactory as those results have been, we have every confidence that those of the current year will be still more so. You are aware that the returns of gold for January and February of this year have been far in excess of the corresponding months of last year. The actual figures are:—January and February this year, 17,494 ounces; January and February, 1895, 10,144 ounces, showing there has been an increase in the two months of no less than 7350 ounces. Taking March at 7800 ounces, as stated in cable just read, the increase for the three months is 9715 ounces. The same ratio of increase may not continue, but we anticipate that the present year's results will be satisfactory in every respect, and, in fact, the best the company has ever had. I will now conclude by proposing—"That the report now presented with the balance-sheet and accounts for the year ending December 31, 1895, be received and adopted."

Mr. EDGAR TAYLOR: As my brother, who has addressed you year by year upon the mine, is not able to be present to-day, it becomes my duty to place before you, as briefly as possible, the important features of the past year's work, and it is pleasant to me to have this duty rendered easy by the fact that I have such favourable mining information to give you. The exploratory work for the year 1895 has been on a very large scale, the sum total of driving, rising, and sinking having amounted to 8725 feet, which compares favourably with the 8000 feet done in 1894. And, again, the number of machine drills employed shows a most satisfactory increase, there having been an average of close on 43 of these labour and time saving machines at work, against 38 or 39 the previous year. Notwithstanding the large output from the mine, a good addition to the reserves of ore has been made, the measurements showing an addition of 20,063 tons for the year, the total now amounting to 96,613 tons, against 76,550 at the end of the year before last, and this, as you will have noticed from the Chairman's speech, may be taken as a very conservative estimate, while to this quantity has now to be added the 12,000 tons alluded to in the cablegram which the Chairman has just read, bringing the total to date to over 108,000 tons. In the northern section of your property, at Gilbert's and Tennant's shafts, work has steadily progressed. Gilbert's shaft, which had been suspended in 1894 pending further development of the reef west of the dyke at Tennant's, was resumed in August last, and sunk 97 feet during 1895, making a total depth of 779 feet; since January 1 in this year this shaft has been sunk a further 32 feet. The sinking has been in the main north and south dyke, and, therefore, unproductive. Tennant's shaft was sunk 70 feet during the early part of 1895 to a total depth of 755 feet, and then suspended, while a crosscut west at the 750 feet level was driven through the dyke. After driving 60 feet, this crosscut intersected the lode, and a level north was driven on it for a distance of 255 feet during the year, and a further 75 feet have been added since January 1. The lode has averaged 1 foot 3 inches in width, and has yielded by assay an average of 6 dwts. to the ton. The last report gave the lode as worth 8 dwts. for a width of 1 foot 8 inches, and the cablegram received yesterday reports it as being 3½ feet, worth 12 dwts.—a decided improvement. These exploratory points, both at Gilbert's and Tennant's, are being pushed on with a view to discovering a wider and richer lode. At McTaggart's shaft, towards the southern extremity of the property, work is being vigorously carried on. The cable message speaks of the 650 north of this shaft as being on a lode 1 foot 3 inches in width, and worth 1 ounce to the ton; in the 650 south the lode is reported as 1 foot wide and worth 3 ounces to the ton. These are very encouraging points, and will be watched with much interest. I now come to the main part of the mine.—Rowse's shaft.

It has not been found necessary to deepen this shaft during the year. The total depth remains, therefore, at 1487 feet. The shoot of ore to the south of this shaft, which was referred to by Mr. Taylor last year, as being entirely separate from the great pay shoots further to the north during the year under review, has been further explored with excellent results. The 1360 south was driven during the early part of last year 131 feet, the lode averaging nearly 1 foot wide, with an average assay of 1¼ ounces. Above, at the 1260 south, there has been driven 118 feet during the year. For the first 105 feet the lode was 11 inches wide on an average, and worth 16 dwts., then a portion of the drive was barren; but the report, dated March 2, shows again an improvement to 13 dwts. The 1160 south, the next level above, was driven during 1895 320 feet. Our agents not being satisfied that this level was on the right part of the lode, drove a crosscut east of this level 65 feet, and cut a fresh part of the lode, which was driven on for a total of 196 feet to the end of 1895, the lode for the whole length averaging over 1 foot in width, and being worth 1 ounce 5 dwts. To the north of Rowse's shaft I have to deal with the development upon the main shoot. The 1460 feet level, north from Rowse's shaft, has been driven during the year 198 feet, and has holed to the 1520 south from Ribbledale's shaft, which was driven 289 feet to meet it. This level, which has not been on the lode, has been necessary to facilitate working the bottom part of the mine, and for improving ventilation. I will here refer to one of the most important works of the year under review—viz., Ribbledale's shaft. This has been sunk for the purpose of working the mine in increasing depth. It now commands the lode to a depth of 1569 feet. Communication from surface to the 1520 feet level was effected on December 14 last. The work on this shaft, which has comprised 1045 feet of sinking and rising, was commenced on June 13, 1893, and it has thus taken 2½ years to bring it down to the 1520 feet level, a piece of work which, we think, shows great energy on the part of the executive at the mines. I would wish to say one word as to the skill with which our surveyor—Mr. Llewellyn—has laid down the survey for this shaft. The survey was one of much complication and difficulty, but the result has proved its complete accuracy. Our surface equipment at Ribbledale's shaft is now nearly complete, and it only remains to finish the timbering in the shaft, when the large winding engines both for hauling the workmen and the ore with great rapidity, will be set to work, and the facilities for increased economy, of which I myself spoke to you last year, will then be brought into effect. The cable message indicates that this shaft will be complete by July 31. The 1520 feet level north of Ribbledale's, which at the end of 1895 was 50 feet north of the shaft, has been driven since January 1 63 feet. Our agents say this level is evidently not on the main part of the lode. The 1460 level north of sump winze has been driven during the year 355 feet. The lode has averaged 3 feet 6 inches in width, with an assay value of 16 dwts., but in the last 175 feet driven the value increased to an average of 1 ounce 3 dwts. A rise over this level showed the lode to average 3 feet 7 inches in width, with a value of 16 dwts. The 1460, the 1360, and the 1260 levels have been continued south during the year with fair results. In order not to make my remarks too long, I must move on to the third shoot, which is now known as Crocker's shoot. This has been attacked by crosscuts from Rowse's workings. Very speedy development has resulted, and at several deep points during the last few months levels, which had hitherto been reputed as barren drivages, suddenly became remunerative, and this has been the direct cause of the increased returns which the mine has yielded. Crocker's shaft has been deepened 445 feet during the year, and is now down to the 1060 level. Direct communication from this shaft has been effected with the workings on the ore shoot by short crosscuts at the 780, 890, and 1060 levels. As is expressed in our superintendent's report on page 51, this shaft has been of immense service during the year, and the sinking of it will be vigorously pushed on. Crosscuts east from Rowse's workings were driven at the 1060, 1160, and 1260 during the year 1895, and one has been commenced at the 1360. These crosscuts in each case cut the lode at wide and rich points, and subsequent driving north and south, as well as the winzes and rises, show the lode to maintain its value well. The 1060 crosscut cut the lode 10 feet wide, and worth 1 ounce. Levels north and south were then driven. The lode in the north drive for a distance of 260 feet has averaged 6 feet in width, and 1 ounce 17 dwts. in assay value. The south level from the same crosscut has been driven 183 feet; lode 3 feet 10 inches wide, worth 1 ounce 5 dwts. This level has since met the dyke, and is suspended. Two rises and a winze in this level expose the lode 5 feet wide, and worth 1½ to 2 ounces. The 1160 crosscut cut the lode 7 feet wide, and worth 2 ounces. The 1160 level north of this was driven 41 feet during the year, on a lode averaging 5 feet 6 inches in width, and worth 2 ounces per ton. Since January it has been driven a further 76 feet on a lode of the same size and value. The cable message gives again the same size and value. The south extension of this same level was commenced in December, and had been driven to the time of the last report 86 feet on very good lode; this report tells us the end is now up to the dyke. The 1260 crosscut cut the lode 13 feet wide, and worth 1½ ounces. The levels north and south of this again were commenced in December, and have been driven to the present time 199 feet, carrying a lode averaging 5 feet wide, worth 1 ounce 13 dwts. In the rise above this level again the lode is still better, the average taken up to the last report being 5 feet wide, with an assay value of 2 ounces 12 dwts. The last report states the lode here was 3 feet wide, worth 3 ounces, and the cable message gives it as 4 feet wide, and worth 3 ounces. At the 780 the lode has averaged 3 feet in width, worth 1 ounce 9 dwts. In the 890 for a distance of 442 feet driven during the year, the lode has been 2 feet 7 inches in width, and worth 1 ounce 10 dwts. These ends have now apparently reached the north end of the shoot. A most satisfactory feature in connection with this shoot is that, so far as seen at present, it is becoming longer at each level, as will be clearly seen from the following figures:—620 feet level: length of shoot, 250 feet; 780 feet level: length of shoot, 445 feet; 890 feet level: length of shoot, 537 feet. The 1060 feet level was, at the date of the last report, not yet through the shoot; but the cable message indicates it has now reached the north extremity. In addition to these rich points, we have the 780 and 890 levels north, at which depths this shoot was being attacked at the date of the last annual meeting. These have been driven further distances of 216 feet and 442 feet north respectively. This enumeration of rich and wide places of attack upon the lode will show you that, by the discovery and development of Crocker's shoot, the Mysore Mine has been greatly enhanced in value. The year's work has proved an increased length of pay-shoot, both north on Crocker's shoot, and south on the south shoot, and it has further proved the continued width and value of the lode in depth. I cannot but think, gentlemen, that we may confidently look forward to good returns during the current year. In reference to Mr. Dyer's circular issued to the shareholders a short time ago, I will refer to the point in which Mr. Dyer again challenges the statement Mr. John Taylor made some years ago, that 10 dwts. per ton would pay. In support of this argument Mr. Dyer goes on to quote the figures of expenditure for 1894, and then places against them the value of gold, assuming the yield to be only ¾ ounce per ton, the result he arrives at is a loss of £230. He considers this unanswerable, and goes on to make the challenge referred to. Mr. Dyer has, however, overlooked in his calculation that in the total cost for 1894, which he quotes as being £112,793, there is included the cost of treating 54,511 tons of tailings, amounting to £19,031, which amount should not have come into his calculation. Take this £19,031 from the total and the balance of £93,762 which remains, represents the actual cost of producing and treating the quartz. The result of this is that instead of there being, as he says, a loss of £230 at ¾ ounce per ton, there was actually a profit of £18,801. This is an example of the statements in Mr. Dyer's circular, and the shareholders will judge for themselves what reliance to place upon the rest of that document. It is open to him to acknowledge that he is wrong, as he said he would be willing to do. (Applause.)

Mr. DYER said he would like to reply to Mr. Taylor's observations, but would not trouble to take up the time of the meeting except simply to say that the challenge made to Mr. John Taylor still stood good, and he would be very glad if he would take it up. (A VOICE: "He has.")

Mr. RANSON asked what would be the cost of the 30 head of new stamps, and whether it was proposed to defray that cost out of the current year's revenue.

The CHAIRMAN informed Mr. Ranson that the cost (£7000) would be certainly charged against the revenue of the current year.

Mr. MORGAN, while unreservedly accepting the statement of the directors that they had no previous knowledge of the concealment of the 7000 ounces of gold, which should have been included in last December's returns, expressed his regret that the statement was not made earlier. He contended that such concealment, although it may have been an innocent concealment by Mr. Hancock, was open to a great amount of suspicion, and consequently many objections. What he wished to know now was what period of time elapsed, if any, between the receipt of the information by Messrs. Taylor and Sons, and that when the directors were acquainted with the fact, and afterwards the shareholders.

The CHAIRMAN said there was no delay whatever. The information was in the hands of the shareholders the day after the directors received it.

Mr. MORGAN accepted the explanation, but wished further to know whether Mr. Hancock had received any definite instructions to justify his action. The returns from the mine were given to the shareholders as absolutely correct, and if they were not they were very misleading.

The CHAIRMAN said he already had stated that the superintendent had received definite instructions to keep nothing back in the future. Previously Mr. Hancock had no instructions to reserve anything, but, doubtless thinking that he would avoid violent fluctuations in the returns, he considered it right and proper to keep back a quantity at the end of last year, when he found that the chute in Crocker's shaft was yielding such a good return.

The motion was then put and agreed to *nem con.*

Mr. MORGAN moved the re-election of Captain McTaggart and Mr. Robert Henty as directors.

The resolution, having been seconded, was carried unanimously.

The auditors, Messrs. Turquand, Youngs, and Co., were also re-elected.

Votes of thanks to the Chairman, directors, and managers terminated the meeting.

THE NUNDYDROOG COMPANY, LIMITED.

The third ordinary general meeting of the shareholders in the Nundydroog Company (Limited) took place at the Cannon-street Hotel, E.C., on Wednesday, when Captain WM. BELL MCTAGGART (the Chairman of the company) presided.

The SECRETARY (Mr. I. Crocker) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I rise to move the adoption of the report and accounts. When last I had the pleasure of addressing you a year ago I had the audacity to prophecy that we should have a successful year, far more so than the year that had gone before; and I venture to think that the report and accounts now presented have fully borne out that prophecy, and that, for once, someone has been shown in mining matters to have been a true prophet. I do not propose myself to enter into any description of the mine, because, as usual, Mr. Edgar Taylor will conduct you presently through all parts of it. To-day, however, I have said Mr. Edgar Taylor, as I regret to tell you that Mr. John Taylor is not able to be present on account of some indisposition, but we know he will have a very excellent substitute in Mr. Edgar Taylor. The only point in the mine to which I will call your attention is the most remarkable discoveries which have been made in the 1080 feet level north of the main shaft. This has passed through a pay shoot of great length and extraordinary richness and width. It has maintained its width throughout the whole course, and ranged in value from 1 ounce 10 dwts. up to 3 ounces and over, and what we have to tell you about it in the telegram to-day will, perhaps, please you still more. Although I do not propose to say more about the mining portion of the property, there are one or two portions of the report to which I should like to call your attention. The first is concerning the erection of a new 30 head mill, of which you have heard. This new 30 head mill has been purchased, and is erected, and we hope it will be running in two or three weeks' time. You all know that we have hitherto had 40 head running—namely, two separate mills of 20 head each, but I want you to understand that the new mill will not at once give you an increase to the whole power of 70 head, which we shall have some day, because we find that a new site will be much more convenient for the great number of shafts that we have giving us quartz, and it will be necessary to dismantle the old mills and bring them to a central position, and under one roof, by which means we think greater economy can be carried out in future than has been possible hitherto. Therefore, the first thing that will happen when the new mill is running will be that one of the 20 head mills will be stopped and dismantled, and we shall then have running one old mill and the new one, which will be equivalent to 50 head, or rather more, because the new mill is more powerful than the old ones. When No. 1 old mill is set to work, No. 2 will be dismantled and brought into the central position, and when that is finished you will have 70 head under one roof, which will commence running for all their power; and it is satisfactory that our manager is confident that when this takes place—which will be about a year hence—he will be able to supply the whole 70 head with good quartz in sufficient quantity to keep them running night and day. (Applause.) In confirmation of his opinion, the increase in our reserve is very gratifying. The increase is nearly 8000 tons over the quantity last year, and it is still increasing rapidly, as you will see from the telegram we have received. We have at the present time over 51,000 tons of rich reserves. This brings me to another point to which I wish to call your attention. That is, on page 6 of the report you will see mentioned additions to buildings, machinery, and plant during the year, taken out of revenue, amounting to the large sum of £12,942. Well, I am bound to say that when these 70 head are erected it will probably represent the full capacity that the Nundydroog will ever be called upon to work. The mine will then be fully equipped with stamping plant. We have also to provide a new pumping engine at Kennedy's shaft and pumping and winding plant for the new shaft, the cyanide plant, which we hope to have in the course of a few months, and then, perhaps, in the not very distant future, though not yet, we may have to provide a certain amount of additional air compressors. When that is done the mine will be fully equipped, and the annual charge of additions to the mine and machinery will at least be very materially reduced. Of course, a mine like this always wants some small additions, but practically we may look forward to an end of those annual additions which have been so heavy in the past, and by the consolidation of the milling under one roof, and with the new mill in position, I think, also, that the cost of working and developments of the mine may be considerably reduced. At any rate, we shall have a mine fully equipped in every respect, and that without any increase in your capital account, which is a very satisfactory thing, giving you greatly increased returns, and with the works carried on with greatly increased economy. That being so, I think I may once again venture to prophecy, as I did last year, that the year before us will be an exceedingly prosperous one, more so than the past, and I hope that for several years to come we shall see a continued increase in our returns and dividends. (Applause.) I will now read you the telegram we have just received from our superintendent:—"700 feet level north of Kennedy's shaft, total drivage 48 feet, lode 2 feet wide, assaying 6 dwts. per ton. 700 feet level south of Kennedy's, total drivage 44 feet, lode 5 feet wide, assaying 17 dwts. per ton. 600 north of Kennedy's, total drivage 428 feet, lode 9 inches wide, assaying 3 dwts. per ton. 600 north of Kennedy's rise, total 28 feet, lode 3 feet 6 inches wide, assaying 7 dwts. per ton. 1080 feet level north of main shaft, total 392 feet, lode 6 inches wide, assaying 1 ounce 10 dwts. per ton. Winze in 1080 north of main shaft, total depth 40 feet, lode 5 feet wide, assaying 1 ounce 7 dwts. per ton. Rise 1080 north of main shaft, holed. 1080 north of main shaft, 300 feet from shaft, width not yet determined, not less than 14 feet, exceeds 3 ounces per ton. New vertical shaft, total depth 88 feet. Reserves increased since annual report was written, 2500 tons. I estimate return for March, 3300 ounces." Having read you that favourable telegram, I feel that I may safely congratulate you on the prospects of the company, and I will conclude by moving the adoption of the report and accounts.

Mr. J. SHAW KENNEDY seconded the resolution.

Mr. EDGAR TAYLOR said: Gentlemen—As my brother, Mr. John Taylor, is not able to be present to-day, I am called upon by the Chairman to address you as to the present position of the mining work upon your property. On page 33 of the report which you have in your hands you will see that the summary of work done again shows a great and most satisfactory increase. The total driving, sinking, and rising done during the year has been 10,391 feet against 7581 feet in 1894, an increase of 2813 feet. On page 34, again, are two more satisfactory items—the increase of the reserve of ore during the year, and the better average yield of the ore treated. In dealing with the mine, I will follow Mr. John Taylor's usual method, and commence at the south end of the property—namely, at Taylor's shaft. This shaft was sunk during the first four months of last year 80 feet—that is to say, from the 1160 to 1240 level on a lode from 1 foot to 3 feet in width, with an assay varying from 9 dwts. to 4 dwts. to the ton. The superintendent has advised us that this portion of the property can now properly be commanded by the main shaft. It is not, therefore, for the present proposed to continue the expense of sinking at Taylor's shaft, but as the levels south from main shaft come under it, communication will be made, and it will be utilised for ventilation. The 1240 south level has been extended 171 feet during the year, and since January 1 a further 67 feet has been driven. The 1240 north was advanced 190 feet in 1895, and since January 1 a further 48 feet. This level has not during the year laid open any ground of value. The 1150 feet level south has been driven 109 feet during the year; here, again, the lode is poor, and evidently we are not in the pay shoot. The 1160 feet north driven during the year 154 feet, throughout which length the lode has averaged 1 foot in width, with a value of 10½ dwts. The rise over this level has opened up some fairly good stoping ground. I now come to main shaft; this shaft was sunk during the year 127 feet. The lode in the shaft has been unproductive, and further explorations will be made for the better ore-bearing ground by the extension of the 1160 levels both north and south, which have just been commenced. The 1080 south has been driven during the year 102 feet; the lode has, however, been small and of little value. I will now call your attention to the 1080 north, where the most important development of the year has been made. This level was driven, during 1895, 307 feet. Here the ore shoot dipping north, as in the levels above, has been again cut. For a length of 237 feet the lode has averaged 3½ feet in width, with an assay value of 1½ ounce. Since January 1 the level has been continued, and the report to hand this week tells us that a further distance of 65 feet has been driven, the lode for this distance averaging the fine width of 6 feet, and the high average assay of 2 ounces 2 dwts. The telegram tells us the lode is now only 6 inches wide, worth 1½ ounce. A rise was put up over this, and communicated to the 1000 feet level on a lode 1 foot 8 inches wide, and worth 2 ounces 7 dwts. A new rise further north has been commenced, and shows the lode 4 feet wide, worth 16 dwts. In a winze under the level the lode is, according to the last report, 5 feet in width, and assaying 2 ounces 17 dwts. 12 grains. The 1000 feet level north has been driven during the year 187 feet, of which the first 68 feet proved ore of good quality, but for the last 119 feet the lode has been poor. Further exploration will, of course, be made at this point in view of the rich discoveries below. The 840 and 920 have been continued during the year, and the winzes and rises below the one and above the other have opened up some good stoping ground. In the 680 level above very considerable exploratory work has been carried on by continuing the drivage, and by crosscutting. No discovery of importance has been made, and the level is now being continued on the main lode. The 520 feet level has been continued north-east, and will shortly be communicated with the 440 south from Kennedy's shaft. At the north end of the property, Kennedy's shaft has been deepened during the year 112 feet, making a total depth of 712 feet. You will remember that this shaft is not being sunk actually on the lode, but to the east of it. A crosscut has been driven 96 feet west from the shaft, and has intersected the lode. The lode, when cut, was 3 feet wide, and worth 18 dwts. Levels north and south have been extended since January a total distance of 65 feet, showing the lode to have an average width of 3 feet 3 inches, and an average assay value of 10 dwts. At the 600 feet level the lode was met with in a west crosscut at 100 feet from the shaft. The 600 feet level north has been driven during the year 318 feet; the lode throughout the drivage has been auriferous, averaging 1 foot 6 inches in width, and varying in assay value from a trace of gold to 2 ounces. Since January a further 91 feet has been driven, but the lode is poor. A crosscut east has been commenced at 382 feet north from the shaft to see if any other and better part of the lode is standing on that side. The 520 feet level north has been driven during the year 160 feet, and is now up to the north boundary. Throughout this distance the lode has averaged 2 feet 6 inches in width, with an assay value of 18 dwts. Two rises over this level have opened up good sections of stoping ground; the lode being from 2 feet 6 inches to 3 feet wide, and worth from 19 dwts. to 1 ounce 2 dwts. The 440 feet level north had reached the boundary before the last general meeting; there is nothing, therefore, to report as to this, but the level above the 370 has been extended during the year 128 feet, opening up for the first 40 feet a rich piece of ground, the lode here being nearly 4 feet wide, and valued at 2½ ounces. The 600 feet south has been driven during the year 283 feet; the quality of the ore has been very variable. Mr. Richards speaks of it, however, as being mostly of good milling value. The width of the lode has varied from 6 inches to 3 feet 6 inches, and the assay value from 2 dwts. to over 3 ounces. Since January the level has been further driven 65 feet; the lode has, however, fallen off in value. The 520 south has been driven 323 feet. For the first 80 feet driven we had a fair lode, but since that it has declined in value. At 330 feet from the shaft a rise has been completed to the 440 feet level above. This rise has opened up a lode averaging 3 feet in width, with an assay value of 2 ounces. The No. 2 rise has, however, not opened up ore of value. The 440 south has been extended the considerable distance of 527 feet during 1895, and a further 93 feet since January. This level has not opened any ore of milling value, but has been driven for the purpose of establishing communication between Kennedy's and main shaft sections of the mine. It is hoped to complete this very necessary work by about another 120 feet of drivage. The 370 feet level south has been driven during the year 460 feet. The lode for the first 300 feet of drivage averaged 2 feet in width, and rather over 1½ ounces of gold to the ton. The latter part of the drivage has not been in payable ore, the pay shoot having been passed through. The three rises over this level have opened up good sections of ore ground. The 300 feet level south has been driven 517 feet during the year; the first 250 feet exposed a lode averaging over 1 foot in width, and worth fully 1 ounce to the ton. The southern end has, however, now passed out of the pay shoot. I will now briefly refer to the north shaft, which is being continued to facilitate the haulage of ore. 113 feet have been sunk in this shaft during the year. Since January it has reached a total depth of 641 feet. The lode in the bottom is 3 feet wide, and worth 11 dwts. to the ton. After very careful consideration it has been decided that for the further proper development of this property a new vertical shaft must be sunk midway between Kennedy's and main shafts. This work has been already commenced, and the cable message says that the shaft is down to a depth of 88 feet. This important work will be pushed on with all speed. One of the objects of this shaft is the lowering and raising of our workpeople on their way to and from their work in the mine.

In conclusion, I would say that we consider the year's work to have been of the most satisfactory nature, and the vigorous development again reflects great credit upon Mr. Richards, our superintendent, and the staff generally. I attach very great importance to the recent opening up of such a very rich lode in the 1080 north of main shaft, which level, it should be remembered, is coming into virgin ground in the very heart of the company's property, and has already proved a valuable ore shoot to extend for a length of considerably over 300 feet. It will readily be seen by my pointing to the picture on the wall that this shoot can speedily be attacked by the drivage of deeper levels north from main shaft, as this shaft is deepened, and, indeed, the 1160 level has already been commenced with this object. Having in view the proposed extended scale of operations in the milling department, which, I may say, is fully justified by the satisfactory way the mine has opened up, I cannot but think we may look forward to favourable results in the current year's working.

Replying to a SHAREHOLDER, the CHAIRMAN said the reserve was invested in Consols, being, therefore, a tangible and actual reserve. The directors gave all the information they could in their monthly statement, but it would not be possible to give the information asked for by the shareholder who had just spoken, because the gold would not have been sold.

Mr. MCIVOR congratulated Mr. Edgar Taylor on his able and interesting statement, and expressed his regret at the cause of the absence of Mr. John Taylor.

The motion was carried unanimously.

Mr. RANSON moved the re-election of the retiring directors, Captain McTaggart and Mr. J. S. Kennedy.

Mr. PHILPOTT seconded the motion, and it was agreed to.

Mr. JEPPS proposed the re-election of Messrs. Turquand, Youngs, and Co. as auditors.

Mr. VERE SMITH seconded the resolution, and it was carried.

Mr. SWAFFIELD moved a vote of thanks to the Chairman and directors, managers, secretary, and staff. The profit the company had made, he said, was exceedingly good, and he was especially gratified that the directors had resisted the strong inducement to divide up to the hilt. They had acted prudently in writing off so large an amount against profit and loss for expenditure on buildings, machinery, and plant depreciation, and adding a further sum to reserve. It meant a little self-denial to the shareholders, but would add materially to the permanent value of the property. (Hear, hear.)

Mr. W. LONG seconded the motion, and the vote was heartily accorded.

The CHAIRMAN, in reply, said it was a great encouragement to the management to find that their efforts were appreciated. The directors were strongly in favour of paying their way as they went and charging a full amount against revenue, so that the shareholders might feel that they were absolutely entitled to the dividend they received. A tribute of praise was certainly due to Mr. Richards, their able and hard-working superintendent, in whom the board had the greatest confidence, and he was well seconded in his efforts by his excellent staff.

The meeting then concluded.

COLONIAL FINANCE CORPORATION, LIMITED.

The first annual meeting of the shareholders of the Colonial Finance Corporation (Limited) was held on Monday, at the Cannon-street Hotel.—The Marquis of TWEEDDALE (Chairman of the company) presided.

The SECRETARY (Mr. H. Milner Willis) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I have now the agreeable duty of moving the adoption of the report and accounts, which I presume you will take as read. I think you will agree with me that they furnish evidence that your affairs have not been neglected during the past half-year, but that, on the contrary, our operations have been attended, not only with great care and prudence, but also with success. The dividend we are able to recommend is equal to the amount called up on the shares—namely, 10s. per share, or 100 per cent. The founders, as you know, are also entitled to a dividend of £14 3s. 4d. per cent. I need hardly tell you that the greater part, less 10 per cent., of the whole amount which will be paid away in dividend was earned, and almost the whole of it was received, during the year under notice. Then we carry over £107,450, composed of shares, stocks, and money due to the company. (Hear, hear.) These are investments which have been made during the past year, and have been made with great care, and I have no doubt whatever if they were realised now they would realise a much larger sum than they are entered at in our books. We believe, however, that when the different properties in which we have our interests are further developed they will be worth a sum very much in excess of that at which they are entered in our books. At any rate, all the shares which stand above par have been taken in at par, and in all other cases we have adhered to the market price of the day. Then I am happy to say that the balances due—an item which you will observe in the accounts amounts to something like £25,000—have been almost all realised since the beginning of the year. It is a very nice sum to commence operations with. There is an item under the head of suspense, £4000, which is for the purchase of a property the title of which has not yet been completed. Then on the other side of the balance-sheet there is an item entitled "Sundry creditors," amounting to £20,459. I am glad to say that since the beginning of the year nearly the whole of that sum has been cleared off. I think we commence this year with every reason to expect an even better result when I have the pleasure of meeting you again, for since the commencement of the year we have made some very good investments, and done some very profitable business. Of course our future prosperity will naturally in a great measure depend upon our investments in mining, land, and other properties, turning out as good as we believe them to be. We are of opinion that both the Hannan's and the Corsair groups are properties of the greatest possible value. If this prove to be correct I need hardly tell you that the result will be extremely beneficial to this company. We have this morning received a letter which is interesting. It is to the effect that a lode struck on Block 921, which adjoins a block belonging to the Hannan's Company, is supposed to be the Lake View lode, and our people, therefore, expect to get this lode in five of our Hannan's properties. That means a great deal, because the Lake View lode is probably one of the most valuable discovered yet on the Hannan's field, and there seems to be no doubt that our Hannan's property embraces this lode. (Applause.) We ascribe a great portion of our success to the admirable manner in which we have been represented in Australia by our mining engineer, Mr. George Gray. (Applause.) Mr. George Gray, as most of you are aware, is a man of great experience in the mining industry. He went out there early in the day—comparatively early in the day—and was enabled, therefore, to acquire for our company mining properties, of which the Hannan's group and the Corsair group may be taken as specimens, recognised, I believe, by all Australian authorities as amongst the very best that have yet been discovered. He is returning within a few days to take up his duties there, and to develop our properties, which I have no doubt he will do with that energy and ability which are characteristic of him. (Applause.) We have also received valuable services from our managing director, Mr. Herbert Moir, who, I regret to say, owing to indisposition, is not able to be present to-day. He is going to take a holiday, and he is going, I am glad to say, to accompany Mr. George Gray to the West Australian gold fields, where he will remain a short time, and then return to his duties here. In doing that he will gain an immense amount of information and experience which cannot fail to be of great advantage to the company. I think, as I have said before, we are entitled to look forward to a very prosperous future. The doleful views in which people indulged at one time with regard to Australia seem to me to be gradually becoming falsified. You will remember, I dare say, we were told that there was no gold—which, of course, is an important factor—(a laugh)—and I have no doubt the failure of one or two mines in the first instance rather confirmed that view in the minds of the public; but we know now that there is abundance of gold. Then we were told that there was a great scarcity of water. This idea is entirely dispelled, at any rate, as far as the properties in which we are interested are concerned. We know that there is not only abundance of water, but that there is ample to spare to be sold to other parties who may wish to use it. Then we are told that there were difficulties in connection with labour, but I have no reason to believe that these reports were any better founded. One other notion was that the means of communication would not be very satisfactory, entailing of course enormous expense in transporting goods of all kinds, including machinery, to the fields. As far as I am able to learn, there has not been that amount of activity in carrying on the railway to the gold fields that perhaps some of us looked for, and might have reasonably expected. But even this will be remedied before long, and certainly within a very few months railway communication will be established with the Hannan's field and other properties with which we are concerned. I think I am right in the expression of a belief that the West Australian Government is fully alive to the importance of doing all it can to second the efforts of those who are spending so much capital in the country. Gentlemen, with these remarks I shall be very glad to move the adoption of the report and accounts. (Applause.)

Colonel R. PARRY NISBET seconded the motion, which was then put and carried unanimously.

The CHAIRMAN stated that the dividend warrants would go out that evening.

Mr. COCKETT said the shareholders had had presented to them such a satisfactory statement of affairs that they all felt gratified to belong to such a company. He only hoped that this prosperity would continue. To have reached such a degree of prosperity a great deal of care and wise judgment must have been exercised by the board, and he thought they could not do better than show their appreciation of that care and judgment and the success of the company by proposing that the remuneration of the directors should be increased. He, therefore, begged to move:—"That the remuneration of the directors be increased to £1500, and in addition thereto 2½ per cent. of the net profits, the inclusive remuneration, however, not to exceed £3000 in any one year, and the same to be retrospective for the past financial year of the year."

Mr. T. COLLIER seconded the resolution, which, on being put, was carried unanimously.

The CHAIRMAN said the increased remuneration was very unexpected; nevertheless, as far as he himself was concerned, and he believed also as regarded his colleagues, it would be received with great satisfaction. The labourer was worthy of his hire, and this company had certainly proved a very successful one. He then moved the re-election of the retiring directors—Mr. C. Caryll Baker and Mr. W. P. Forbes.

The motion was seconded by Colonel NISBET, and carried unanimously.

The auditors—Messrs. Cash, Stone, and Co.—were, on the motion of Mr. W. H. KEEP, seconded by Mr. J. C. TAYLOR, unanimously reappointed.

Mr. TAYLOR enquired whether it was the intention of the board to pay dividends annually or semi-annually.

The CHAIRMAN: We contemplate paying our dividends annually; it gives us freer scope, I think.

Mr. W. H. KEEP moved a vote of thanks to the Chairman and directors, saying he thought it was very largely due to the Chairman that the company had been formed at all, and the shareholders were certainly grateful to him for presiding at that meeting.

Mr. COCKETT seconded the motion, which was carried by acclamation.

The CHAIRMAN briefly acknowledged the compliment, and expressed the hope that the directors would continue to justify the confidence that had been placed in them by the shareholders.

The meeting then terminated.

ANCHOR TIN MINES, LIMITED.

An extraordinary general meeting of the shareholders in the Anchor Tin Mines (Limited) was held at the Cannon-street Hotel, on Wednesday, Mr. ALFRED DEEDES presiding, "to consider the position and rights of the company as to the completion of the purchase of the company's properties with special reference to the possible important modification in the terms of the agreement of purchase, and the reduction of the capital."

The CHAIRMAN stated that in consequence of certain facts which had come to the knowledge of the directors as to the value of the property, it was deemed advisable to consult the shareholders before proceeding to incur any additional expenditure. The serious difficulty which beset the board was that the output at the mine would undoubtedly be considerably diminished, and the returns would not reach the expectations held out. The board have negotiated with the promoters with the result that they agreed to surrender 37,500 of the 75,000 shares to be allotted them. One matter he wished to point out was that the working capital of £50,000 had not been fully subscribed; and in regard to the probable yield he gave figures showing the dividends which it was calculated could be paid, supposing a certain number of stamps were employed. The 50 heads at present on their way out to Tasmania would earn a dividend of 9 per cent.; 100 head of stamps would bring them a return of £17 3s. per cent.; and 150 head, the number they hoped to employ, 27½ per cent. There were two courses open for adoption by the shareholders—one was to obtain the remainder of the working capital by issuing the reserve shares. They could, however, if they desired, wind up the company, and sell the property as a going concern, and he had not the slightest hesitation in saying that by this means the proprietors would get every sixpence of their money back. In calculating the profit to be earned on the mining of the tin stone, he had not allowed anything for the revenue they would be able to derive from the working of the alluvial ground, the cost of which would be very small, as no machinery was necessary to extract the metal. The situation of the mine was very favourable both in regard to water and timber, the power to be obtained from the former being sufficient to enable them to dispense with the steam appliance which was in the first instance ordered with the 50 head of stamps. The cancelling of this order would effect a saving of nearly £2000. Proceeding, the Chairman read the report of the company's manager in Tasmania, in which it was stated:—"The property is situated in the parish of Dorset, in the colony of Tasmania. The Groom River runs through the company's property, and is the source of No. 1 water supply. The total area held by the company is 325 acres surveyed in 12 blocks. . . . . The geological formation is granite; from pure granite changing into feldspathic and quartzose porphyries, with tin ore (cassiterite) minutely disseminated, and in places carry a very high percentage. The most noticeable associated minerals (occurring in very small quantities only) are fluor spar, molybdenum, copper pyrites (chalcopyrite), and wolfram. None of these occur in sufficient quantities to depreciate the value of the tin ore, which is of a good quality. The area of the proved stanniferous formation is very extensive, covering 22 acres. . . . The elevation from tram line at No. 1 face (at which point the tin formation is 40 feet high) to No. 4 face is 210 feet. The distance is 850 feet. Therefore the tin formation already proved above the level of our tram roads contain over 7,000,000 tons of tin stone (allowing depth of 90 feet), sufficient to maintain an output of 1000 tons per day for 19 years, with every reason to believe this formation will yet be found covering many more acres and from results of past workings and present prospects contain tin ore, even at the present very low price of tin, in highly payable quantities, when treated by the proposed appliances. . . . . I am highly pleased with the supply of water at command, which is beyond my anticipation. Therefore we will not require steam to supply motive power for the 200 stampers. . . . . The Groom River traverses through tin-bearing country some miles above our property, and in flood time has carried down sand, gravel, and tin ore, produced from disintegration of the rocks formation, which has been deposited on our section, forming deltas, causing the course of the main river to flow through different channels, thereby forming our present alluvial formation, and has been also fed from the tin-bearing formation situated on the high ridges north from the Groom River in our own property. There is every reason to anticipate that tin ore will be found in highly payable quantities. New block of 40 acres applied for, situated westerly from our main workings, has been surveyed. From general indications the tin formation traverses in that direction, and may be of great importance to the company. I congratulate you on the provision made for machinery. This, with a good water supply for motive power, will reduce the cost of treatment to a nominal rate, by which I have every reason to believe the Anchor Mine will become one of *the* important mines in Australasia."

Mr. ADAM LEE, who has recently returned from a visit to the mine, also gave his impressions as to its value. He had no hesitation in saying that the property, viewed from all the different points, was a most valuable one. The cost of developing the mine was moderate, while the return would be a good one. Of course, as to the value of the undertaking, this entirely depended on the capital put into it. If the directors were enabled to erect a large number of stamps, then he had no doubt that the profits would be great in the same proportion.

Considerable discussion took place as to the position of the company, and ultimately the following resolution was carried, with two dissentients:—"That this meeting of shareholders in the Anchor Tin Mine authorises the directors to confirm the contract of June 6, 1895, subject to the following modification:—1. 'That the original purchase price of £100,000 be reduced to £62,500, payable as to £25,000 in cash, and as to 37,500 fully-paid £1 shares.—2. The points of detail in connection with the carrying of the scheme into effect to be dealt with in the discretion of the directors.'"

A vote of thanks to the Chairman concluded the meeting.

THE BANK OF AUSTRALASIA.

The sixty-second annual general meeting of the proprietors of the Bank of Australasia was held at the office of the corporation, 4, Threadneedle-street, E.C., on Thursday, when Sir Andrew R. Scoble, Q.C., M.P., who presided, in moving the adoption of the half-yearly report, in which a dividend at the rate of 5 per cent. was recommended, stated that during the recent unfavourable state of business in the colonies they had always had in hand ample funds to meet any calls made upon them. In fact, the past three years had been an anxious time for the directors, and in consequence the dividends had not been so large as the shareholders perhaps desired. The accounts showed that the liabilities of the bank to the public for deposits was £13,000,000, and for bills, &c., £1625, but they had, on the other side, in specie, bullion, loans at call, and Government securities a sum which would very nearly cover 40 per cent. of those liabilities. It would be some satisfaction to the shareholders to know that during the year 6000 new accounts had been opened, and that was the best possible opinion of the bank that they could wish for. One reason for the diminution in the profit of the bank was that their loans were upon such short terms that the rate of interest was exceedingly small. But the greatest economy was being exercised in the management of the corporation, and a reduction of 10 per cent. had been made in the salaries of all the officials. The directors had also taken advantage of the development of the gold mining industry in West Australia to open new agencies there, and they hoped that these would shortly help to enhance their profits. Concluding, he expressed the opinion that in the coming half-year they might look for a general improvement in all the departments of the business.—Mr. Nelson seconded the motion, and it was agreed to.—The three retiring directors, the Hon. A. G. H. Gibbs, M.P., Mr. Martin R. Smith, and Mr. Chas. G. Hamilton, were re-elected, as also were the auditors, Messrs. Welton, Jones, and Co.—Votes of thanks to the directors and the officials terminated the meeting.

THE EXPLORERS' SYNDICATE (LIMITED).

An extraordinary general meeting of the shareholders in the Explorers' Syndicate (Limited) was held on Monday, at Winchester House, E.C., for the purpose of considering resolutions for the voluntary winding up of the company.—Mr. E. T. Read, who presided, formally moved the two resolutions, stating that the proposal had practically been agreed to by all the shareholders. He might tell them that their business was going on in quite a satisfactory manner, and he believed the results of the present year would be better than those of last year.—A shareholder seconded the resolutions, and they were carried unanimously.—A vote of thanks to the Chairman and the directors concluded the meeting.

PALMAREJO MINE.

The report of the amalgamated Palmarejo Mining Company (Limited) and Mexican Mineral Railway Company (Limited) for 1895, states that by the terms of the deed of amalgamation a general meeting is to be held in March in this and next year, and in compliance therewith such a meeting is to be held on Monday. The proceedings, however, can only be of a formal character, as the meeting will have to be adjourned in consequence of the accounts for December having only been received within the last few days. The agreement was duly approved by all sections of debenture holders at meetings held in October, but some delay occurred in obtaining the approval of certain parties to the amalgamation. These objections were got over by making some small concessions, and then steps were taken to obtain subscriptions to the prior lien loan, which the directors are glad to announce was successfully accomplished. In October a storm occurred, accompanied by a flood that caused further serious damage to the conduit, the effect being to almost stop mill work for the month, and thus to seriously interfere with the earning power of the mill. One consequence of this is that the directors are unable, for the present, to pay the interest on the second and third debenture bonds. The cost of putting the conduit in order will be some £3000 more than was anticipated. The monthly results from the mill have been somewhat erratic, and the directors regret they cannot hope for better until the new works—including the erection of 40 additional stamps—are completed, which will probably be in six months' time. The total quantity of ore crushed was 19,239 tons, and the total quantity panned was 17,883 tons. The bullion produced represented $410,005, the general and bullion expenses amounted to $359,010, or $18·66 per ton, and the extraordinary expenditure to $19,843

NEW ISSUES.

THE LUCKY GUSS GOLD MINE (LIMITED).

This is a new company just formed to acquire, work, and further develop the Lucky Guss Mine, located on Bull Hill, in the mining district of Cripple Creek, Colorado, U.S.A. According to the information published in the prospectus the location is 1500 feet in length by 300 feet in width, crossed by the Specimen claim, which reduces the length by 300 feet, but with the right to connect both sections by driving. The company's consulting engineers, Mr. A. E. Walton and Professor G. C. Tilden, have personally visited and reported upon the mine, and likewise Mr. A. D. de Masters. The prospectus goes on to say:—

"The district of Cripple Creek is one of the richest gold fields in the world. Ores of exceptional value are constantly being sold to smelters. In consequence of the exceptionally high value of the ore, many mines have paid for their development from the start, and yielded large profits to their fortunate owners. The Cripple Creek deposits are unique, both as regards the occurrence of the gold, and the persistence and permanence of the lodes, which are true fissure veins. The entire district, which is now yielding at the rate of between two and three millions sterling per annum, has been for the most part developed by private enterprise, and has only lately attracted the attention of capitalists in Chicago, New York, Boston, London and Paris. Some of the most valuable mines in the whole district are located on Bull Hill. The Victor, with its two wonderful lodes, which have been explored to a depth of over 500 feet, is stated to have yielded nearly a quarter of a million sterling within the past two years.—Pike's Peak, Pharmacist, Specimen, Orpha May, Zenobia, and others may be named. The district is well supplied with every requisite for mining, and there are reduction works close at hand, and others in course of erection. There is also railway communication by two different routes with the great smelting centres, Pueblo, Denver, and Omaha. There is a free market for the ores, and keen competition for the same by the smelters. The great facility with which the ore is mined and treated has led to the establishment at Cripple Creek of the system of leasing claims for short periods. Successful prospectors have often leased their claims to others on royalties, and these again, in some cases, have sub-leased on enchanced royalties. The fact that lessees are paying royalties of from 25 to 40 per cent. on ores extracted, is in itself sufficient evidence of the heavy profits being earned on work done. The joint report of Mr. A. E. Walton and Professor Tilden on the Lucky Guss Mine, affords detailed information of a satisfactory nature, showing not only that the ore now being worked will pay a handsome dividend on the proposed capitalisation, but also that there are lodes of high grade ore coming into the property from the adjacent claims on both sides. From one of them a sample taken by Mr. Walton assayed no less than 155½ ounces of gold to the ton. This vein Mr. Walton personally examined in the Orpha May, only 20 feet from its entry into Lucky Guss. There are three lodes at least traversing the property, the Lucky Guss lode, the Ruby lode, and the Orpha May lode. These three, Mr. Walton states, are approaching, and will probably effect a juncture in the Lucky Guss at about 200 feet below the present workings, where a large and valuable body of ore may be anticipated. At the north-east end of the property but little development has been done, though veins now being worked on the adjacent properties undoubtedly pass through, amongst them the celebrated Pike's Peak lode referred to by Mr. de Masters. The Lucky Guss has been producing pay ore for the past six or eight months—as will be seen from the details offered by smelters' returns given in the joint report of Messrs. Walton and Tilden. These returns show that the average yield of gold has been approximately $50, or 2½ ounces of gold per ton, taken from only one of the lodes traversing the property. The company therefore enters upon possession of a paying mine from the start, with ore reserves above level capable of yielding good dividends for some time to come, whilst further sinking should develop ore bodies that will render a much larger output possible. Basing a calculation upon Mr. Walton's supplementary report, it may be reasonably assumed that without recourse to the rich lodes coming into the property from the Orpha May and the Ruby, the Lucky Guss would yield a high return upon the total capitalisation of £120,000. 100 tons only of such ore as was seen by Mr. Walton in the Orpha May making for the Lucky Guss, no more than 20 feet from its side line, showing by assay of samples taken by himself $3113·40 per ton, would alone return half the entire capital of the company."

HANNAN'S "EMPRESS" GOLD MINING AND DEVELOPMENT COMPANY (LIMITED).

This company has been formed, with a capital of £175,000, in ordinary shares of £1 each, "for the purpose," as the prospectus states, "of acquiring and developing four mining leases, numbered 1466, 1467, and 1601 at Hannan's Find, in the Kalgoorlie Gold Field, Western Australia, comprising an area of 96 acres or thereabouts, and held on the usual mining lease granted by the Government of Western Australia. The property is situated about half a mile south-east of the Brownhill, Brownhill East, and Brownhill Consolidated properties, and about one mile from Great Boulder, and the reefs which run through the leases are stated by experts to be situated in the south-east extension of the Brownhill line." The property has been favourably reported on by several mining engineers. Mr. J. Wilson Archibald, M.A.I.M.E., superintending engineer of the Hit or Miss Proprietary Gold Mines, in his final report dated November 2, says:—"The outcrop of four lode formations is exposed in several costeans throughout the property. . . . . These lode formations vary in width from 20 to 30 feet." Mr. Gerhard A. Stockfield, having examined the mine, "can recommend it. The reefs on the property," he says, "amount in number to four. There are strong indications of others. Width has not been proved; average up to the present time about 23 feet. Assays made from the vein matter give from 20 dwts. upwards. The property has been proved by workings and developments. The deepest shaft is 60 feet. In all probability continuation Brownhill. I consider it a most valuable property." Mr. Leslie Norman says:—"It is incontestable that, with equal area, the group of mines within the Hannan's Gold Belt have no parallel on the field, and I make this assertion advisedly, developments in a large number of mines having proved the existence of extensive bodies of very high grade ore." The area of the property being so large, it is not intended that the company should itself work the whole of the ground. It is proposed in the first instance to develop one of the leases, bring it to the point of making returns, and then sell it as a going concern at a substantial profit.

The directors of the TRANSVAAL GOLD FIELDS (LIMITED), at the general meeting to be held on April 9, will recommend the payment of a dividend of 8s. per share, whilst £30,000 will be placed to reserve fund and £159,495 15s. 10d. will be carried forward.

REPORTS FROM THE MINES.

BRITISH MINES.

CARN BREA.—The following report, dated March 20, has been received:—H. B. east. Harvey's engine shaft is sunk 16½ fathoms below the 334 fathom level. We are still sinking in granite of the same character as when we last reported. We hope to complete the sinking to 20 fathoms below the 334 in another five or six weeks, when we shall crosscut north and south with the hope of meeting with a productive lode. The 334 fathom level is driven west of crosscut south of shaft 75 fathoms. There has been no particular change in the lode in this end since the general meeting. Having a strong opinion that productive ground may be met with near Poddler's cross course, we are pushing the driving on with all speed. The 322 fathom level is driven east of cross course 40 fathoms. Lode worth £10 per fathom. Judging from the strength and character of the lode, it must be near the junction previously reported, the lode being beyond the size of the level we purpose next week opening out on it both north and south, and so prove its width, and if a more productive part is standing in either of these directions. Finding that ventilation is much needed in this level, we have this week taken the boring machine from the 334 end east, and with this have commenced to rise in the back of the 334 about 4 fathoms from the end; the rise is up about 6 feet. Lode worth £8 per fathom. We hope to communicate both levels in about six weeks. The 334 end east will be idle whilst this work is in hand. The lode in the 310 fathom level east is worth £9 per fathom.—H. B. west. The lode in the rise in back of 310 fathom level west of crosscut west of H. B. west shaft is worth £7 per fathom. Our stopes at the H. B. west are about the same value as last reported, worth on an average £10 per fathom, by the working of which a profit is being made. Our returns have been slightly affected this fortnight owing to our having to fix a big stull in our principal stope.

LEADHILLS.—W. H. Paull, March 24: Brown's vein. There is no change of moment in the several drivages and stopes on this vein since last reported on.—Raik and Highwork veins. In crosscutting eastwards at the 100 fathom level, the ground continues of a congenial character, and strings of spar are still being met with. In driving the 100 fathom level north of crosscut, Raik vein shows a little ore at times, but not enough to value. In same level going southwards the vein contains a good mixture of spar, but is still too soft for producing ore.—Brow vein. At the 100 fathom level driving west this vein has improved a little, now 4 feet wide, well mixed with spar, and strongly spotted with lead ore, valued at 15 cwts. per fathom. George's Roust vein going north-west at Gripp's adit level is producing a little ore at times, but not in paying quantities. Surface operations are being pushed forward regularly, and weather favourable for such work.

POLBERRO.—Report dated March 21: The 50 east has been driven on the course of the lode 25 feet during the last fortnight. The lode is of the same size and appearance as last reported. In the 26 east the lode has been disordered by a small crossing, but is now assuming its natural course, and is looking better than it did before.—John Harper.

TINCROFT.—Report dated March 20: South. No change worthy of notice in Martin's east shaft. In the 330 west of Martin's east shaft we have holed the rise, and the men are driving north, where we expect to cut the main part of Harvey's engine lode in a few days. In the 270 driving east of crosscut, east of Martin's east shaft, the lode is worth for tin £8 per fathom. In the 234 west of Martin's east shaft we have commenced to rise. The lode is worth for tin £15. In the winze sinking below the 234, east of Harvey's engine shaft, the lode is worth for tin £9. No change in the 282 fathom level crosscut south and west of Martin's east shaft. In the 320 driving west of downright shaft the lode is worth for tin £9. In the winze sinking below the 120, east of downright shaft, the lode is worth for tin £8.—North. In the winze sinking below the 142, east of Willoughby's shaft, the lode is worth for tin and arsenic £9. In the 140 fathom driving east of Willoughby's shaft, the lode is worth for tin, copper, and arsenic £14. In the winze sinking below the 100, east of Willoughby's shaft, the lode is worth for tin, arsenic, and copper £20 per fathom. In the winze sinking below the 90, east of Willoughby's shaft, the lode is worth for tin and arsenic £10 per fathom.—West. We are making good progress in cutting down and fixing new pitwork in the engine shaft, and hope to get the 70 bob complete during the coming month. In Williams' shaft the men are engaged in cutting it down, and hope to complete the same to the bottom of the downright during the next month.—William Teague, John Hammill, George Nancarrow.

COLONIAL, INDIAN, AND FOREIGN MINES.

BLAGROVES FREEHOLD.—Report of work done in the mine for the four weeks ending 8th inst.: During the month the engine shaft was sunk by 9 men, 18 feet. The rock pierced through is still rather hard. We shall now make preparations for cutting the necessary chamber before commencing to drive crosscut to intersect the reef. Several hindrances were experienced during the month, the most serious one being the breaking of the windbore, which had to be replaced by a new one. The smith was engaged in putting winding drum on the shafting of engine, to enable us to lower away pit work, and change bucket, &c. The carpenters have built storeroom, put hand rail around poppet heads, making shaft timbers, &c., as required. The surface men were employed in doing the general work about the mine. The machinery and pitwork are working fairly well.—(Signed) W. H. Argall.

BARBERTON REEFS.—Mine superintendent's report for fortnight ending February 28: Work on the dam and further opening up of spring has been going on, and a good flow of water is shortly expected. Crosscuts over old workings are being made, also several other crosscuts to test reefs are being put in on various parts of the property. The Government Surveyor is expected shortly in the district, and will survey the property. New discoveries on the adjoining properties are being made, which will be taken advantage of by us in tracing reefs to our claims; the prospects are highly encouraging. In regard to the discovery of old workings, these are situated near the eastern end of your ground. It has been a large open working, extending some hundred yards on top of the hill; this working is a huge trench put in on the south side of the bar, and has evidently, by its magnitude, been a source of gain to the old workers. I am crosscutting to find the reef which has probably been the objective point of early workers.

GRAVEL.—February 21: Run No. 14 continued on the left hand side of the Rica bank up to February 11, when we commenced cleaning up. We have been working nearly all the time with San José water, only, as the San Antonio syphon was partly carried away by a slide of rock at the end of January; owing to this and the dry season having set in, we have been somewhat short of water. On February 14 I cleaned up $2500 gold. I can only attribute the poor result of this to our having struck a poor patch of gravel to the western side of the Rica bank. Basing my judgment on the quantity of gravel which passed through the sluices and the result of former runs, I fully expected to get $5000 to $6000 gold. No gold could possibly have been lost.—Run No. 15. This has been commenced on the Mentira bank, but will be continued on the Chasco, which delivers into the same sluices.

EAST WEALTH OF NATIONS.—Coolgardie, March 26: Lease 1041. North shaft driven during past week 40 inches, making a total length of 30 feet.—South shaft. Crosscut west 20 feet, veins of iron and quartz.—Lease 10423. Shaft has now reached a depth of 70 feet.

GUY FAWKES REEF.—Mr. Blatch reports under date of February 14: I have the pleasure to report to you this week that the main reef is 5 feet in width, and that the work is progressing very satisfactorily considering the various obstacles one has to deal with in this district, and I think the syndicate ought to congratulate themselves on the grreat amount of success that they have met with in both the Guy Fawkes and Ingamasonga properties in so short a space of time.—Second Huntingdon mill. Building. This is progressing very slowly on account of the carpenter employed on this work being off duty through sickness. I was unable to get the timber cut for this building as promised last week.—Herbert A. Blatch.

INGAMASONGA REEF.—Mr. Blatch reports under date of February 14: You will doubtless be pleased to hear that the results obtained so far are exceptionally good. I may here state that the clean-up from the mill last Saturday was a record one, the amalgam weighing over 5 lbs.

KAPANGA.—Report for the four weeks ending February 8.: Larnach's shaft has been sunk a further distance of 23 feet by 16 men, and is timbered and divided with the necessary foot way; the country rock is of a decomposed nature, although it is very bad shooting ground, the class is everything that can be desired as a gold bearing rock. We have intersected a small leader 4 inches wide, running about north-east and south-west, dipping north about 45°, composed of quartz and pug; by pounding and washing the stone, a little gold was found. Rising above 800 on what is believed to be the Kapanga reef. The rise has been extended 10 feet by four men; the country rock is rather hard and highly mineralised; at present the reef is about 2 feet wide, composed of calcite and quartz, carrying a little pug; traces of the precious metal are found by pounding and washing the ore. The reef is looking well, and rich ore at any time would not surprise me.—Rising above the 500 on Kapanga reef. This rise has been exrended 16 feet by two men; the reef is a fine body of stone, and by present appearances we are hoping for good ore from this block.—Rising above the 420 on Kapanga reef. This rise has been extended 18 feet by two men; during the rising a little gold was got. The reef is about 9 inches wide, and continues to look well.—Stoping north of the last-mentioned rise. The stope measured 28 by 11, and has given a few pounds of rich ore; the reef varies from 2 to 4 inches in width, which is all put through the battery. We are hoping this will prove a very productive block, as it has carried gold for over 80 feet.—Extension of intermediate proper on the footwall portion of Scotty's reef, above 420. This has been extended 10 feet by two men. The reef is about 20 inches wide, composed of quartz and pug, mixed with country rock. So far, nothing of importance has been met with, but the country rock is improving as we advance, so shortly, we trust, we shall encounter payable ore.—Rising above Little Intermediate, on Scotty's hanging wall. This has been extended 6 feet by one man. The reef is 6 inches wide, composed of pug mixed with quartz boulders, but nothing of importance has been struck as yet.—Driving north of the last-mentioned rise. This has been extended 7 feet by one man, but owing to the influx of water we had to abandon the working for some time, but now the water has fallen off considerably, we shall resume operations again.—Driving north of Gunn's rise above 300, on Scotty's reef. This drive has been pushed on 6 feet by one man, and the reef is improving as we advance, in forebreast it is 2 feet 6 inches wide, carrying ore of low grade, the country rock is a superior class and highly mineralised.—Rising above the last-mentioned level. The rise has been put up a further distance of 7 feet by one man, the reef is a compact body of ore, about 9 inches wide, producing low-grade ore, but the indications are very promising. We are now in a position to make better progress, seeing we have had a new tramroad up to the forebreast.—Stoping north of rise by one man. Stope measured 27 by 15, this producing ore of low grade; the reef is 14 inches wide, carrying quartz and pug with a little pyrites.—Kapanga reef 200. We have cleared and re-timbered about 120 feet of the main drive, also repaired 80 feet of main shoot. The tramroad is laid and everything put in good order. We have commenced to drive on what we believe to be the main hanging wall portion, but as yet we have not advanced far enough to judge of its value.—Surface workings. Sinking winze below Cotter's drive. This has been sunk a further depth of 7 feet by two men; the country rock is very hard and heavily charged with mineral. The reef is about 2 inches wide, carrying a little gold, and we are hoping to intersect the Main reef or Kapanga reef in the next few feet.—Driving south of the winze. The drive has been extended 16 feet by one man, and the reef is composed of solid quarts, carrying a little gold, for the distance driven, which is very encouraging. When the junction is reached we may expect rich ore. The Corby engine is now in full swing, the shaft is completed to the main crosscut, which is about 6 feet above the back of the chamber. The chamber will be cleaned, and in working order in two or three days, when driving will be resumed. The winding engine and winding-gear is working first-class without a single hitch. We crushed during the month 33 tons of ore, which gave 176 ounces of amalgam, yielding 66 ounces 4 dwts. of melted gold. All machinery and pitwork working well.—(Signed) W. H. Argall.

KOMATA REEFS.—The following report of work done during the month of February has been received in London:—Komata reef. The level was extended on contract a further distance of 66 feet, making a total distance driven 314 feet. At this point it was decided to put in a crosscut to intersect Argall's reef further north. The contractors drive 12 feet, and are in a kindly country.—Main crosscut. The contractors have made poor progress, although the ground is not very hard. They advanced 27½ feet, total distance now being 272 feet.—Argall's reef. We have commenced driving north on the footwall side, the ore extracted being of good grade. Good progress has been made at the culvert, which is being constructed under the mullock tip. The other surface hands were employed getting timber and doing other necessary work. The sawyers have turned out 1638 feet of sawn timber and split 200 slabs. The carpenter and smith have been fully employed with the ordinary mine work.—(Signed) W. H. Argall.

LUCKY GUSS.—Letters to hand from Mr. McArthur, of the Blue Jay Mine, adjoining Lucky Guss, state that the lode for a width of over 12 inches runs over $200 of gold to the ton. $185,000 have been offered for the Blue Jay and Whippordale lodes. The demand for the shares is very great, and they are advancing in price.

SHERLAW'S GOLD.—Mr. Sherlaw reports under date of February 19: We are getting well advanced with our progressive work in the mine; we have started the winding engine, which is working splendidly. The condensor, too, which we have erected on the exhaust, has proved a great success. For a continuous run of three days we have consumed only 80 gallons of water, and we anticipate reducing this amount to about 100 gallons per week. I am busily engaged with the construction of the tramway, and anxiously waiting for the rails which you advised me in your last of having shipped per s.s. *Gulf of Bothnia*, and which I see by the newspapers is expected daily.—Erection of battery. We have now got the boiler set, and the engine beds are nearing completion. The columns and the 4000 gallon tank are also in position, and all the other work is being vigorously proceeded with.—James Linn Sherlaw.

HAURAKI.—The following report for the four weeks ending the 8th inst., and up to date, has arrived in London :—Engine shaft. This shaft was sunk 20 feet 6 inches by 12 men, reaching the 220 feet level; under the circumstances of having cut down a body of water with our cross vein just below the 160 feet, and the whole lift hanging with screws in chains from surface, and the mine being worked so extensively in the winding department, I am exceedingly well pleased at the progress the shaftmen have made in sinking this shaft without a hitch. We are now engaged cutting a chamber, and in doing so we have cut No. 2 reef and considerably drained the 160 feet levels. The reef is small and of no value. This reef should have been cut 40 feet below the 160 feet, but it has proved to alter its underlay. I should mention here that owing to the angle of dip of reef, where we have cut into it in the chamber, is equal to several feet south of the main crosscut at the 100 and 160 feet levels—*i.e.*, the productive line being dipping northerly; therefore, the direct dip will be met (say) 50 feet north of our chamber. We have sunk a winze about 60 feet north below the 160 feet 14 feet; also at a point 160 feet north we have sunk another winze 15 feet, and abandoned on account of water. I referred in my annual report that we were probably passing over a new shoot of gold in this latter, and it now seems probable that the first winze 60 feet from shaft is opening out a fresh shoot. These said winzes have considerably improved below the 160 feet, and looks encouraging for the opening out of the 220 feet level. After we have completed the chamber we shall start driving north on No. 2 immediately, and crosscut to No. 3. The shaftmen will then sink for bearers, fix cistern, erect plunger lift to surface, and resume sinking for another 80 feet to reach the 300 feet level. This will practically advance our reserves considerably, and every effort will be made to accomplish the work before winter sets in. —160 feet level. Iona crosscut. This level has been driven 50 feet, total 314 feet, being 7 feet in advance of the winze. Several small veins of quartz, showing strong colours of gold, have been cut through, but no work of importance can be started until we communicate to the winze for ventilation. We have started rising, and have about 60 feet to rise. This point is working by six men.—No. 1 reef north. We have driven 14 feet north by two men from the Iona crosscut. The reef is about 10 inches wide, but no gold seen, although the rock and matrix is all that can be desired.—No. 2 reef north. This has been driven 20 feet by four men, and is north of No. 2 winze (sunk below the 160 feet 15 feet), the greatest part of this drivage yielded good specimens in the bottom of the level in a reef averaging 12 inches wide. The last 6 feet passed through the reef is disordered and poor; this end is now at about the same point as the 100 feet level north, which was abandoned some time since (poor). I do not anticipate any more gold in this direction, as a cross barren vein, which crosses No. 2 at this point seems to cut off the gold and disorder the reef, see working plan. Black seam marked crossing the crosscut east of No. 2—100 feet level near our boundary.—No. 2 reef south. Two men have driven this 16 feet, the reef being pinched up and poor. —No. 1 winze below 160 feet about 60 feet north of shaft. Six men have cut winze plant and sunk winze here 14 feet. The reef in the bottom is 8 feet wide, and has improved from a mere vein 2 inches wide of no value, to a good specimen reef, and bids fair to open up a fresh bunch of gold.—No. 2 winze below 160 feet level about 160 feet north of shaft. Six men have sunk this winze 10 feet, total 15 feet. The reef continues to improve going down below the 160 feet yielding rich specimens of gold, and bids fair to prove a fresh shoot, and as referred to in my annual report, page 1.—Stopes on No. 2 reef above 160 north. 12 men have been engaged here, the reef averaging about 8 inches, producing good quality ore.—Winze on cross reef below 160 feet level. Two men sunk a winze 14 feet, but meeting too much water was abandoned. The reef is small, but very rich, 2 feet wide, yielding rich specimens.—Branch off No. 3 reef south 160 feet. Two men have driven on this branch southerly 25 feet to the 50 feet. The vein is small, and as yet nothing of importance has been seen. It seems probable that this branch is a part of the old Green Harp reef, and with further development likely to yield well.—Stoping above the 160 feet level on No. 3 reef. Two men have been stoping here with poor results. — Crosscut north of No. 2 reef 160 feet level. A crosscut from No. 2 reef has been driven 31 feet, total 56 feet. The New Year's reef and other veins have been cut through, and colours of gold met with. We continue crosscutting, being in a good position to prove No. 1 reef, to develop southerly to meet the No. 1 north, from the Iona crosscut.—New Year's reef, 100 feet level. Six men have communicated a winze below the 100 feet to the 160 feet, the reef averaging 12 inches wide, and producing good payable crushing ore and picked stone.—Stoping above 100 feet level on New Year's reef. 12 men have been stoping here. Reef 15 inches wide, and yielding good ore for the stamps.—Rise on Cross reef. Four men have communicated the rise above the 160 to the 100 feet level. This reef, 3 inches wide, has produced very rich specimens from the one level to the other. They are now driving west on this vein from No. 3 reef at the 100 feet level.—Cross reef above the 100 feet level. Six men have been stoping this reef above the 100 feet. Reef 3 inches wide, and yielding rich specimens.—Stopes above 100 feet No. 3 reef. Six men have been stoping here. The reef being pinched small, and poor results.—No. 2 reef level above 100 feet. On a level with the top of our stopes four men have started a level north to prove the reef in that direction.—No. 2 reef north 100 feet. Two men have extended our 100 feet level 21 feet. The reef being disordered and poor, and being near our boundary, is suspended, and the men put to rise in the back several feet behind the end.—No. 1 reef 100 feet. Four men are driving south-easterly on the reef cut in the crosscut from No. 2 near our boundary (this crosscut I purpose calling No. 2 crosscut in future), driven 46 feet, total distance 58 feet, at a point 50 feet from the crosscut the reef made large, 2 feet 6 inches, and strong colours of gold were seen; the reef is pinched up in the forebreast, but may improve at any cut; we are parallel here to our No. 2 and No. 3 reef, and this No. 1 reef development here is very important. We stamped for the month 416 tons of quartz, and crushed 813 lbs. of picked stone for a return of 2059 ounces 7 dwts. of melted bullion, which realised £6312 7s. 2d. I am in hopes of having a return of about the same for the next clean-up, and if our 220 feet open up as the two winzes below the 160 feet promise, we shall make good profits for some time.—(Signed) Francis Hodge.

NEW HAURAKI.—The following report for the month ending 8th inst. has been received in London :—The deep level crosscut is now driven 336 feet, being 43 feet for the month. We have just cut through a porous reef 1 foot wide, of no value; a large body of water is issuing therefrom, and it has drained a portion of the water in the south Tokatea winze, and must have some linking connection thereto; if we could draw the water from the bottom we should resume its sinking. At this point we have another 164 feet to intersect the approximate north and south Tokatea reef. This is taken from recent accurate survey. The south Tokatea winze, after sinking 3 feet as I advised in my last, was abandoned 27 feet. The reef in the bottom of the leader portion averages 6 inches, carrying a strong well-defined wall composed of friable quartz, silica, and iron pyrites embedded in a highly mineralised rock. The deep level driving eastwards, or parallel to deep level crosscut, only further south, has cut through the east and west reef, and we are giving our drivage more southerly, believing in that direction we may discover the main part of reef. The channel of reef is very favourable, and anything met with here can be easily trucked in wagons to Success battery. The deep level crosscut 100 feet below Nicols deepest level is driven 60 feet, measured 8th inst. The rock here is of a dark nature and is hard and tough for driving in. This is an important development in this section of our property. This level crosscut is approximately at about the same level as our Success battery, and 300 feet below our deep level crosscut approximately. I may say the new road now in course of construction comes within 2½ chains of our workings here, and will greatly facilitate operations in this part of the property. The amount of timber cut by our bushmen besides trackmaking, &c., for the month was 1509 slabs, sleepers, 93 props, and 78 caps. The area of ground applied for 30 acres, and which surveyed between 14 and 15 acres, have been granted after a considerable amount of objections. I enclose the Warden's judgment for your perusal; it lies east of our eastern boundary. I have already named the ground, and am cutting timber on it, Kauri, to stock for emergency before winter sets in, while in the meantime the property is being surveyed for levels. All details will be forwarded in due course after survey, &c. I believe in this block the company have a valuable section.—(Signed) Francis Hodge.

ORITA.—February 18:—Mine. I am washing at the Suarez side of the mine where the gravel is soft, but an enormous amount of sandstone, pipeclay, and granite boulders make it quite impossible to run constantly. The hard sandstone is our most expensive hindrance to get off, and it is showing signs of reducing. The pipeclay will, I fear, accompany us as long as we work the deposit, as it is now uncovered in all directions.

PREECE'S POINT PROPRIETARY (Hauraki).—Report for the four weeks ending 8th instant: The engine shaft was sunk during the month by nine men 46 feet through propylite, strongly impregnated with iron and arsenical pyrites. At a depth of 57 feet a set of bearers was fixed, making all the timbering above that point perfectly secure. For the last 20 feet the ground was of a rather heavy nature, therefore the sets of timber were put closer. The shaft is centered to the present bottom, and ladders put in position. Two feet more of sinking must put us on a level with the old level, therefore communication will be effected as soon as possible. The magazine for explosives has been constructed. The excavations for office and store-room were finished, and the erection of building is now being proceeded with. Prospecting is being carried out on the easterly portion of the property. The excavations for foundation of pumping and winding engines will be pushed forward with all despatch.—(Signed) W. H. Argall.

PAHANG (Sungei Lembing).—Report for January:—Pollock's. As mentioned in my last report, this mine was flooded through a sudden inrush of water, and the breakage of one of the pump clacks. The new boiler is now working, and I am able to run the large winding engine constantly, making use of a tank to drain the mine, and by this means I hope to have the water down to the No. 3 level by the end of the month. From the overhand stope from B winze 41 tons of ore, assaying 5 per cent., were sent to the battery, and from the old stopes over No. 1 level 140 tons, assaying 5 per cent.—Campbell's. A new drive west on the lode from crosscut was started, and advanced 19 feet. Lode small, but of good appearance, and with well-defined footwall.—Teagues. Adit west was advanced 42 feet, total from crosscut 77 feet. Lode 4 feet wide. East was extended 29 feet, total from crosscut 53 feet. Lode 5 feet wide. Leading overhead stopes are being carried on in each drive, and from these and the drives 351 tons of stone were obtained, assaying 3½ per cent. The lode in the stopes varied from 4 to 7 feet wide. There are 130 feet of payable ground opened up in this mine with some 80 feet of backs.—Nicholson's. The crosscut from Bells being driven to intersect this lode was advanced 22 feet, total 485 feet, and should cut the lode after driving about 150 feet more. From surface indications there is reason to hope that we may cut payable ground before reaching Nicholson's lode. The No. 1 drive was advanced east 17 feet, total 731 feet, lode in face poor. There is no change in the overhand stopes. I am timbering where the best ore is obtained in this mine, and, consequently had to stop stoping there. 315 tons, however, were sent to the battery, assaying 6 per cent.—No. 2 section adit level. Drive east was advanced 33 feet, total from crosscut 118 feet. The lode in the face is much broken up, and consists chiefly of hard killas, it is making water freely, and I hope to meet with an improvement shortly. The stone in the overhand stopes remains about the same as last month. 254 tons were sent to the battery, assaying 4 per cent.—D.W Jones.

PAHANG (Jeram Batang).—Report for January: Adit level The western drive has advanced a further distance of 26 feet, total from crosscut 439 feet. The country passed through was a black slate. The lode has improved in size, and will not average 3½ feet. I have about 20 tons of lodestuff stacked, which I intend to put through the battery in a few days' time. I expect this to average from 3 to 4 per cent. black tin. This drive must now be getting under the western chute of ore that we are stoping on in the No. 1 above adit level. The stopes over the back of this level east are turning out ore from 4½ to 5 per cent. quality. There has been a little improvement here during the month. The contractors have stoped 32 cubic fathoms of ore during the month.—No. 1 above adit. The drive west was driven another 35 feet, total from crosscut 556 feet. The formation in the face at present will average 4 feet in size. I have seen no tin here during the month; the country passed through was a grey slate. We cut heavy water, but after three or four days it drained itself, and is now almost dry. As the formation still kept going off its course in a northerly direction, work was stopped for the present. The stopes over this drive western chute of ore are turning out ore worth 7 per cent. black tin. The contractor has broken 17¼ cubic fathoms of ore. The lode will average in stopes at present 8 feet. The eastern stopes over this level turned out 26¾ cubic fathoms of lode stuff, and the quality is worth from 3 to 4 per cent. The lode in these stopes will average 10 feet in thickness.—No. 2 above adit. The drive west was driven 30 feet through a brown slate country. The lode here is composed of quartz, and will average 3 feet in thickness. It is worth from 3 to 3½ per cent. in quality. During the month I put 100 tons of stone through the battery that was taken from the east and west drives in Mr. Straughan's time. Some of this stone went as high as 4 per cent., while the latter part was only worth 1½ per cent., so I have left the remainder, as I deemed it inadvisable to put it through the battery.—Shaft. This has been sunk a further distance of 7 feet, total from the surface 69 feet. The country passed through was a hard black slate mixed with quartz. The lode formation still keeps in the north end of the shaft. There has been no increase in the water, but the country still keeps bad for blasting.—Engine-house site. The contractor has excavated 331 cubic yards of earth during the month. This is now completed, and there is plenty of room for the erection of the winding plant.—New ore shoot. 62 cubic yards of stuff were removed by the contractor.—Output. 1070 tons of stone were crushed during the month for a return of 43 tons 18 cwts. of black tin.—Thos. H. Bath.

PAHANG-KABANG.—Report for January: Brands adit west. This end has been driven 17 feet, total west of slide 71 feet. The lode has been without tin for the whole of the month, and is now 6 inches wide. As this end has not a promising appearance, I have stopped it and put the men to resume driving the new No. 3 east. —Top drive west. We have holed this drive, which greatly shortens the distance between the points of operation and the Kongsee, and has given very good ventilation in the top drive east.—Winze. This This has been sunk 18 feet 6 inches, total 113 feet. During the month the lode broke away into the hanging wall, but we have cut in south and found it again. This winze is now deep enough to commence driving towards the No. 3 east, and to allow for a sump for the water. From almost the bottom of the winze I have started a drive towards the new No. 3 east. Three feet have been driven, the lode being 8 inches wide, but only shows a trace of tin. —No 3 drive east. I have started driving on the largest and most promising looking of the three droppers referred to in my report of November. From this drive to the bottom of the winze is about 200 feet, so by driving from each end we ought to make a communication in about 3 or 4 months. This No. 3 will come under the rich shoot of ore cut in the top drive.—Kabang Mines, Smyth's lode. This crosscut has been driven 35 feet, total 215 feet. At a point just perpendicular to the old workings we cut a small dropper, and as we have cut nothing since I have put men to drive on this westward towards the surface of the hill, and I have also put men to rise in the back of the crosscut. When this work is completed, I consider it will give Smyth's a fair trial, for the work will be directly beneath where some very good tin was cut.—Semiliang. I have paid a visit to these mines, but as the place is so overgrown, I could not give it a proper inspection; the samples which I took were very poor. As soon as convenient I will try to go there again, and make a fuller inspection.—Frederick John Rich.

SANTELLI LEVEL.—Mr. Santelli reports, under date of February 23: I have had that part of the crosscut which had been neglected during my absence levelled by two miners. They have finished to-day, to-morrow I will make them fix the branch lines so that as soon as I get labourers I may follow these two lodes in direction.—New reef. I have had all the lode laid in the heading and in the recut, and a part outside with a branch for depositing the quartz extracted. The siding inside remains still to be made, and also another one which comes against the tramway. When all this is done the lode will be followed in direction.—Victoria drive. The shed for the workmen is completed. I continue advancing so as to recut the lode and follow on its course, and by next mail hope to report to you the completion of these works.—Ernest Santelli, superintendent.

TAITAPU GOLD ESTATES.—Extracts from letter from the manager, Mr. W. A. Low, Wellington, N.Z., February 20:—The gold is not in flour in our quartz, but is rough and frosted and goes all through the stone. The result of this stripping and paddocking has been that on the 13th, the evening of the day before I left my camp, he had cut the reef, first at 2 feet and over, and the next section referred to in his letter disclosed 3 feet of very rich stone, probably 100 ounces to the ton; although we have said simply "50 is a low estimate." The great features in this discovery are that the reef is increasing in richness and thickness, and above all that it is pointing straight to the rich creeks farther south. The logical necessity appears to be, our reef has supplied and is the parent of all the quartz found further south. That there are, however, one or more parallel reefs higher up the Whakamarama range, at the back of Golden ridge and of our outcrop, supplying gold and quartz freely to the head of Slaty Creek, seems also a necessity. The 3 ounce nugget found by Bond did not come out of our reef, different gold, different quartz. There are 12 dwts. of quartz in it when crushed and assayed. We must find that reef. There are rich specimens high up the Patarau, and also high up the Turimawiwi and the Anatori Rivers. We must find the reefs which supplied these specimens. They are in our territory, undoubtedly. I have three sets of prospectors out after them; but I expect Hay up, and to hear his opinion as to prospecting for these reefs. The reef we have got is a blind reef, and might have remained unearthed for ever had the landslip not occurred I have a sufficient number of men employed opening up the country by repairing and cutting new tracks, and I have let the northern end of the big swamp out by a 20 feet deep trench into the harbour at West Wanganu. By-the-bye, I shall tap the lagoons at south end of swamp, and empty them into the Paturau River, securing at a small outlay 1000 acres of magnificent land, and a good road from the harbour to the Paturau. The agricultural and pastoral resources are much larger than I was able to report before I went personally over the property. The Paturau especially has rich soil, and very fertile. Then the valley of the Anatori is a glorious valley. It is fit for close settlement for miles. I have never seen, even in Ceylon, a more beautiful country. We must make roads into it first—tracks I mean—and then cut up and sell. You will be glad to hear that I consider every word Mr. George Beetham said about the character of the estate, as to its gold, coal, timber, soil, &c., are more than borne out by my inspection, and, in my opinion, you have got an extremely valuable and cheap property. I have decided upon a road and boat service, which will cost not over £1000, and put drays, &c., within reach of Collingwood in 10 hours from my camp at Riley's old store. Extracts from letter from Mr. T. L. Adams to the manager (W. A. Low), February 11: Taitapu Estates. I started work on the reef on Monday, opening out from the surface both north-east and south-west, and I am very pleased to report that in the south-west extension we cut the reef this afternoon, and what I may term enormously rich. My cutting was not deep enough to get a clean section. We cut down 2 feet in it, and did not reach the footwall, so she is over 2 feet thick and carries gold. Taking it at a low estimate, that will go 50 ounces to the ton. I have got to grass about ¼ ton from the small portion we could get at (I think it quite necessary the quartz should be bagged and stored, as it is too rich to leave on the surface). You correctly estimate that the area to the north-east is limited, as the country is cut down by Slaty Creek and its tributaries, still there is sufficient country remaining to carry a very extensive portion of reef, if the reef develops in the other direction towards Malone's, as now seems most likely. All I can say is, you have got one of the biggest things in reefs on this side the line.

TRUE BLUE (Hannan's).—Mine manager's report for the fortnight ending February 17:—No. 1 shaft, 100 feet level. The north-east crosscut has been extended a further distance of 6 feet 6 inches, total from shaft 68½ feet. The ground has become harder and more difficult to work. I have set a contract for extending the crosscut a further distance of 100 feet at £1 19s. per foot. The south-west crosscut has been driven a distance of 39½ feet from shaft through a good class of country. A contract for extending this crosscut a further distance of 100 feet has been let at £1 5s. per foot. —Underlie shaft. The intermediate level has been driven 41 feet, total distance from shaft 129 feet; for the last 40 feet of driving the lode has been small and practically barren. Operations are now suspended in the drift. I have set a contract for sinking a winze from this level to the north-east crosscut a distance of 60 feet at £2 per foot. Shaft A has been sunk a further distance of 17 feet, total depth from brace 42 feet.—Jubilee shaft, 100 feet level. The south-west crosscut has been extended a distance of 11 feet, total distance from shaft 18 feet.—Shaft B. The south drive at the 50 feet level has been extended 40 feet from the crosscut. For the last 20 feet of driving the lode has been small and the formation broken.—General. The total underground footage for the fortnight has been 185 feet. I have 22 contractors at work.

HIT OR MISS PROPRIETARY.—Summary of reports received to date on the various leases comprising the company's property: Lease No. 343. The main shaft is down 143 feet. The crosscut north at the 130 feet level has been extended 63 feet. At about 40 feet from plat, passed through a large quartz reef 7 feet wide, containing a large amount of iron pyrites. The drive east on this reef has been extended 7 feet, and the character of same has not changed. The open cut, 15 feet wide, is being pushed on. In making connection at the 50 feet level, struck coarse gold, very rich, and latest cable to hand advises that this level is still in rich ore.—Lease No. 724. Total depth of shaft 124 feet. The crosscut north at the 116 feet level has been driven 23½ feet. At about 6 feet from plat, intersected a pyrites reef 2 feet wide, very strongly ironstained, and carrying fair prospects. The Black and White reefs have junctioned, and are now on footwall of Black reef, and also carry 2 feet of White reef. The lode at the 116 feet level has a kindly appearance, composed principally of quartz and carrying a good deal of pyrites.—Lease No. 725. No. 1 underlay shaft. Total depth sunk 107½ feet. The lode is 2 feet wide and shows coarse and fine gold. The sinking of this shaft has been stopped, owing to the large quantities of water which have to be contended with.—Main water shaft down 117 ft. Have cut plat at the 100 feet level, and have driven west 43 feet, at which point the Black reef was intersected. Drove north for 10 feet and connected No. 2 underlay shaft. At connection met with a quartz leader 5 inches wide intersecting the Black reef at right angles and carrying good gold. A pump and hauling gear will be fixed at this shaft, which will be able to cope with all the water when the communications are made.—No. 2 underlay shaft. Total depth 95½ feet. The reef is 2 feet wide, strongly iron stained, and carries both coarse and fine gold.—Vertical shaft, north-east of main water shaft. The drive at the 100 feet level has been extended west 50 feet. The reef has pinched to about 4 inches wide, but carries good prospects. This shaft, as also in the case of No. 1 underlay, has been stopped, owing to large quantities of water having been met with, which will be cleared as soon as the pumps now on order are fixed up.—Lease No. 761. The underlay shaft is 94 feet deep, and have struck water. Have driven south 78½ feet at the 90 feet level. The reef is 6 inches wide, and shows fair prospects.—Lease No. 760. No. 1 underlay shaft. The drive north at the 100 feet level is 60 feet from shaft and water steadily increasing. Have obtained some very rich ore from this mine, which is looking uncommonly well.—Main engine shaft. The chamber 10 feet by 12 feet at the 90 feet level is finished, and have commenced crosscutting to the lode.—Labour conditions. As explained in the last circular sent to the shareholders on February 10 last, the Government have granted this company exemption on leases Nos. 756, 757, 758, 742, 744, and 775, so that no development work has taken place on these blocks since that date, all work being concentrated on the other leases in view of the early erection of the machinery.—Water. This is steadily increasing, and our consulting engineer does not anticipate that we shall have any difficulty in getting the quantity we require, as soon as the necessary connections are made and our pumps erected. The size and importance of the Hit or Miss Mines appear to have decided the West Australian Government to lay out a townsite in close proximity to our property, and they also contemplate the erection of a dam for preservation of surface water to the extent of 3,000,000 gallons, which will be of much service to this company when its operations become more extended.—Battery. The difficulty with the railway arrangements is causing some delay in getting the battery forwarded from Freemantle. Our manager advises us that there are thousands of tons of machinery and other heavy goods lying at Freemantle, and that the Government traffic branch declines to state at what time trucks will be at our disposal, as at the beginning of February when he writes, only perishable goods were allowed to be trucked. He, however, is using his utmost endeavours to push forward the delivery of our machinery, and it is to be hoped that he will be successful. Instructions were sent to him by cable to proceed at once to Freemantle and use all his influence with the Government officials, and spare no reasonable expense in getting the machinery sent off as soon as possible, at the same time looking after it, to ensure its all arriving safely.

WEST AUSTRALIAN GOLD FIELDS.—The following is the latest information received from Hon. H. J. Saunders regarding the properties in which this company is interested: Mount Margaret Reward Claim (Limited). This property has been inspected again on behalf of the West Australian Gold Fields by Mr. P. Morgans, an engineer of great experience. Mr. Morgans speaks very highly of the property, and states that the quartzite lode is 17 feet thick, averages 1½ ounce to the ton, and that there are numerous leaders and lodes which will yield sufficient ore to keep the battery running for many years.—Princess Alix. Mr. Morgans has also inspected this property, and reports most favourably on it. Three more leases in the same neighbourhood have been taken up.—Yeri la claims. Very satisfactory development is being made on this property.—New Chum West. Good work is being done on the shafts on this property. No. 1 shaft is down 95 feet and the underlie on the north lease is down 104 feet, both to water level. Crosscut in No. 1 shaft has been driven 104 feet and in the north drive 111 feet. A level from the crosscut has been driven 159 feet. On the Pearl the shaft is down 80 feet and levels driven east and west 150 feet and 65 feet respectively.

WAIHI GRAND JUNCTION.—Mail advices of February 21 bring the following report from the mine manager:—Grand Junction shaft. A change of ground is appearing, and from the appearances I think we are in the ancient hill side of the Martha Hill. Under the overlying rhyolite there are strong traces of charcoal, giving the appearance of some vegetation at a distant period, and the ground is now simply an indurated clay containing a considerable number of small crystals, the composition of which I am not able to determine. The ground is dry and is still good sinking. This change was struck in the south-west corner of the shaft, and is dipping at a pretty stiff angle to the north-east. The bore consequently did not reach the same material at the depth shown by the boring notes—viz., 222 feet, where it was called brown sandstone. We may expect to go deeper than this before reaching what will probably be the andesite. Doubtless this rock will be immediately underlying the surface clays. I propose when reaching the andesite, if it proves of a hard nature, to increase the hands in the shaft to another miner per shift to endeavour to keep up the sinking at a good rate.—West Waihi shaft. Having commenced to crosscut I think it more advisable to continue the work until the lode is intersected, as we shall then have reliable data to go upon for laying out the position for a permanent shaft in the centre of this ground. The present shaft being small and close to the boundary can be worked subsidiary to the main shaft.

FOR CONTINUATION OF MINES SEE PAGE 410.

— The NEW HERIOT GOLD MINING COMPANY (LIMITED) are stated by a cable, dated March 23, to have declared a dividend of 20 per cent., payable to all shareholders registered on Tuesday March 31. (The warrants for this dividend may be expected to be in the hands of all European shareholders at the end of May next.)

BRITISH COLUMBIA.

By W. PELLEW HARVEY, F.C.S., Mem. N. Eng. Inst. M. & M.E.

SINCE 1892 *The Mining Journal* has come in touch with mining in this province, and, judging from the comments made, has evidently gleaned its facts from sources of undoubted reliability. This sort of thing does a good deal to encourage investment, and itself should be encouraged. I have been in this district for nearly six years, and have contributed a good many articles to various journals during that period, and naturally have watched with much interest the gradual recognition by the outside world of finance of the possibility of the success of mining ventures in British Columbia, and am to-day pleased to be able to state that the sanguine utterances of the Press and individuals are found within the scope of accuracy, the products of the mines for 1895, according to the Government report for that year, having nearly approached in value that of the alluvial gold period of the sixties, only a few thousand dollars difference being shown.

It might be said that actual quartz mining only commenced a year or so ago; therefore the returns from grass-root mines must be considered as an indication to some extent of what may be anticipated with increase in the number and depth of present mines. Many have asked why, in a country where so much mineral wealth exists, have the mines been so neglected? This is easily replied to; we have a vast country of 380,000 square miles, with only 100,000 inhabitants, 60 per cent. of this number only being whites, and a small percentage of these mining men. Up to within eight years the East was not opened to us, but since the advent of the Canadian Pacific Railway more has been heard of British Columbia, and a few have taken interest in mining, having come from Eastern Canada. The discoveries by these pioneers have been followed up by the incoming of miners from Montana, Idaho, and Washington, and these practical Americans may be said to have proved beyond a doubt that the immense mineral wealth which exists in their States have extended into this province. Prospecting proving a successful occupation, it was followed by mining, and this has, in the majority of cases, been followed by the return of dividends to the adventurers. Time has not allowed of much deep mining up to date; but, judging from the value of the products at grass root, and the increase of this value with present development, it is evident that, given time and judicious management, the returns issued by the Minister of Mines will in future show rapid and great increase. In 1895 the English and French engineers were to be seen here, and I presume in 1896, as a result of these visits, more will follow, and then the investment of foreign capital. This alone will place this colony on a sound footing, and probably, as a result, as much will be heard of the resources of British Columbia as is now of South Africa, West Australia, &c.

Kootenay.

This is the name of the leading mining district, and includes north, south, east, and west of the Kootenay, so-called, having derived its name from the Kootenai River, the area being 10,000 square miles; the boundary being the rock of mountains on the east, the Columbia valley to the north and west, and the International boundary south

The communications are excellent, the rail and water ways being almost perfect. An outline of the best route to take for the mining sections of importance is:—

From the main line of the Canadian Pacific Railway at Rivelstoke connect with the steamers running twice and even three times a week; for Nakusp if the Slocan Camp is to be reached from this side; for Robson, if the Nelson Camp is to be reached from this side; for Trail Landing, if the Rossland Camp is to be reached from this side. From Nakusp, the Nakusp and Slocan Railway runs into the mining centre of the Slocan; from Robson a railway runs to Nelson, where there are steam boats to connect with Kaslo, Pilot Bay, Ainsworth, &c.; from Kaslo you can reach the Slocan by the Kaslo Slocan Railway. From the boundary (south) this country is reached by steamers from Bonner's Ferry and Spokane, and various railways connect at Spokane with direct railway to North Port, if you wish to get into Rossland, and by the same means Nelson is reached. The facilities for transportation from any point in British Columbia, or the west, are now very great, and competition has made the cost moderate, both for freight traffic and passenger traffic. To reach East Kootenay point, step off at Golden on the main line of the Canadian Pacific Railway, and take steamers for points south, and for Cariboo, stop at Ashcroft.

Discovery of Mines other than Gold.

The honour of being the pioneer shippers of ore I think falls to the Illecillewaet district, on the main line of the Canadian Pacific Railway, and was made from the Lanark Mine, the product being silver-lead ore, averaging 58 per cent. lead, and from 40 to 70 ounces of silver per ton; this was sent to Swansea and San Francisco, but for some reasons, said to be mismanagement, work was suspended; but more work has been done here recently, and is now, I hear, in the hands of the Lillooet, Fraser River, and Cariboo Gold Fields Company, of London, who will probably go on with development. This mine has a good showing, and the others, "Maple Leaf," &c., surrounding promise well, and given a fair price for silver-lead I fail to see why the Illecillewaet Mines, being so well situated as they are, should not pay well.

Around Nelson there are a good many mines in a more or less developed state, the principal ones of such days being the Poorman, Royal Canadian, Star of the West, Majestic, Whitewater, &c.; these are gold propositions, the gangue being quartz, with heavy sulphurets of iron and mispickel. The first and last have had a good deal of work done on them, and in the case of the Poorman with much profit. I understand these could be acquired on reasonable terms, and as water and timber are available should offer an inducement.

On the Poad Mountain, in the same camp, are very many other properties, the leading ones, however, being the Silver King, Kootenay-Bonanza, American Flag, Kohinoor, and some quartz claims, now operated by the Hall Mines (Limited), of London. The ores produced are argentiferous copper, with some gold, as grey and horsefiesh copper, ranging from 4 per cent. to 45 per cent. copper, and from 40 ounces to 2000 ounces of silver per ton, the average being about 5·8 per cent. copper and 50 ounces silver. The company is working with great judgment, and is destined to have excellent returns so soon as the smelter is in running order. It was started about two months ago, but some difficulties with the running of the tram line and the water jacket had to be rectified, and in consequence delay in the regular return of matte has occurred. The smelter is supposed to handle 100 tons of ore daily, and up to the time of the stoppage referred to had put through a considerable quantity on this basis, giving a matte of 45 per cent. of copper, 300 ounces silver, and 12 ounces gold per ton, with a concentration of 10 to 1. The mines operated by the London company (the only one of the province under such management) are looked upon locally as being the most important in British Columbia, and no one doubts the final issue. Coke costs, laid down at Nelson to the smelter, about $14 per ton of 2000 lbs. (Hood's, Cardiff); to get the matte to a refinery will cost about $17·50 per ton, but it is expected, with the development of the mines at Rossland and Nelson, and also the Slocan, the immense coal fields of the Crow's Nest will eventually be opened up, and by this means the price of fuel materially decreased, and local refinery made possible with economy. Further up the Kootenay Lake is Pilot Bay, where a smelter is operating successfully on the lead ores of Kaslo, Slocan, and Ainsworth, and some dry silver ores from the Springer Creek.

(*To be continued.*)

The MONARCH SYNDICATE (Limited), the CRIPPLE CREEK EXPLOITATION SYNDICATE (Limited), and the CRIPPLE CREEK MINES (Limited), are prepared to RECEIVE APPLICATIONS for the SHARES OFFERED for SUBSCRIPTION in this PROSPECTUS.

The necessary Working Capital having been guaranteed, the LISTS OPEN TO-DAY, and will CLOSE for TOWN on TUESDAY NEXT and for COUNTRY the FOLLOWING DAY.

THE LUCKY GUSS GOLD MINE (Limited).

Cripple Creek, El Paso County, Colorado, U.S.A.
(Incorporated under the Companies' Acts, 1862 to 1890.)
CAPITAL £120,000, divided into 120,000 shares of £1 each.
20,000 Shares are appropriated for Working Capital.

Issue of 50,000 Shares at par, payable 5s. per Share on Application, 10s. per Share on Allotment, and 5s. per Share one month after Allotment. Of the Shares now offered for Subscription, 10,000 will be appropriated for Working Capital; 10,000 Shares will be reserved for future issue if additional Working Capital should be required. The Vendors accept the whole of the purchase consideration as to 60,000 in fully-paid Shares, and the balance in Cash or Shares, as the Directors may determine.

DIRECTORS.
S. JENNINGS, Chairman, Cripple Creek Exploitation Syndicate (Limited), 8, Drapers' Gardens, E.C.
Claude T. J. Vautin, Member of the Council, Institution of Mining and Metallurgy, F.I.C., 42, Old Broad Street, E.C.
Joaquin Mancha Kilby, 142, Cromwell Road, S.W.
J. J. Carr, Director of the Tynemouth Gas Company, North Shields.
Charles H. Tindal, Director of the Monarch Syndicate (Limited), 19, Great Winchester-street, E.C.

CONSULTING ENGINEERS
In London:—A. E. Walton, F.G.S., M.I.M.M., 8, Drapers'-gardens.
In Colorado:—Professor G. C. Tilden, State School of Mines, Golden, U.S.A.

BANKERS.
Messrs. Brown, Janson, and Co., 32, Abchurch-lane, E.C.

BROKERS.
Messrs. Read and Brigstock, 5, Austin-friars, E.C.

SOLICITORS.
Messrs. Ashurst, Morris, Crisp, and Co., Throgmorton-avenue, E.C.

AUDITORS.
Messrs. W. B. Peat and Co., 3, Lothbury, E.C.

SECRETARY AND OFFICES (*pro tem.*).
Alexander Glencross, 8, Drapers'-gardens, E.C.

THE LUCKY GUSS GOLD MINE (Limited).

ABRIDGED PROSPECTUS.

This Company is formed to acquire, work, and further develop the "Lucky Guss" Mine, located on Bull Hill, in the now celebrated mining district of Cripple Creek, in El Paso County, Colorado, U.S.A.

Mr. A. E. Walton and Professor G. C. Tilden, the Company's Consulting Engineers, have personally visited and reported upon the mine, which has also been reported upon by Mr. A. D. De Masters. The statements in this Prospectus are based upon these reports—copies of which and extracts from official records of the District are annexed.

The district of Cripple Creek is one of the richest gold fields in the world. Ores of exceptional value are constantly being sold to smelters. In consequence of the exceptionally high value of the ore many mines have paid for their development from the start, and yielded large profits to their fortunate owners. The Cripple Creek deposits are unique both as regards the occurrence of the gold and the persistence and permanence of the lodes, which are true fissure veins. The entire district, which is now yielding at the rate of between two and three millions sterling per annum, has been for the most part developed by private enterprise, and has only lately attracted the attention of capitalists in Chicago, New York, Boston, London, and Paris.

Some of the most valuable mines in the whole district are located on Bull Hill, the "Victor," with its two wonderful lodes, which have been explored to a depth of over 500 feet, is stated to have yielded nearly a quarter of a million sterling within the past two years. Pike's Peak, Pharmacist, Specimen, Orpha May, Zenobia, and others may be named.

THE LUCKY GUSS GOLD MINE (Limited).

The joint report of Mr. A. E. Walton and Professor Tilden on the "Lucky Guss" Mine, affords detailed information of a satisfactory nature, showing not only that the ore now being worked will pay a handsome dividend on the proposed capitalisation, but also that there are lodes of high grade ore coming into the property from the adjacent claims on both sides. From one of them a sample taken by Mr. Walton assayed no less than 155½oz. of gold to the ton. This vein Mr. Walton personally examined in the "Orpha May," only 20ft. from its entry into "Lucky Guss."

There are three lodes at least traversing the property, the "Lucky Guss" lode, the "Ruby" lode, and the "Orpha May" lode. These three, Mr. Walton states, are approaching, and will probably effect a juncture in the "Lucky Guss" at about 250ft. below the present workings, where a large and valuable body of ore may be anticipated.

The Lucky Guss has been producing ray ore for the past six or eight months—as will be seen from the details offered by smelters' returns given in the Joint Report of Messrs. Walton and Tilden. These returns show that the average yield of gold has been approximately 300, or 2½ ounces of gold per ton, taken from only one of the lodes traversing the property. The Company, therefore, enters upon possession of a paying mine from the start, with ore reserves above level capable of yielding good dividends for some time to come, whilst further sinking should develop ore bodies that will render a much larger output possible.

Basing a calculation upon Mr. Walton's Supplementary Report, it may be reasonably assumed that without recourse to the rich lodes coming into the property from the Orpha May and the Ruby, the Lucky Guss would yield a high return upon the total capitalisation of £120,000. One hundred tons only of such ore as was seen by Mr. Walton in the Orpha May making for the Lucky Guss, no more than 20ft. from its side line, showing by assay of samples taken by himself 3113·40 dols. per ton, would alone return half the entire capital of the Company.

Applications for Shares should be sent with the amount of the deposit to the Company's Bankers.

Prospectuses and Forms of Application can be obtained at the Company's Bankers, Brokers, Solicitors, and at the Company's Offices, 8, Drapers'-gardens, Throgmorton-street, E.C.

London, 25th March, 1896.

The SUBSCRIPTION LIST will CLOSE at 4 p.m. on MONDAY NEXT, the 30th, for London, and at noon on the following day for Country Applications.

On March 14 the following cable was received from the Manager:—"Since 1891: Shaft, 80 feet; good supply water; large lode."

HANNAN'S "EMPRESS" GOLD MINING AND DEVELOPMENT COMPANY (LIMITED), KALGOORLIE, WESTERN AUSTRALIA.

Incorporated under the Companies Acts 1862 to 1890.

96 ACRES.

CAPITAL, £175,000, in 175,000 Ordinary Shares of £1 each.

The Vendor stipulates for an allotment of 58,333 fully-paid Shares in part payment of the purchase price (being the largest amount permissible under the rules of the Stock Exchange), and the balance of 116,667 SHARES are now OFFERED for SUBSCRIPTION.

Payable:—2s. 6d. per Share on Application, 5s. on Allotment, 5s. on 1st May, 5s. on 1st June, and the balance of 2s. 6d. when required; or payment may be made in full on Allotment.

DIRECTORS.
R. J. Price, M.P., 104, Sloane Street, S.W. (Director Rhodesia, Limited), Chairman.
F. Hall Kirby, M.I.C.E., 39, Old Broad Street, E.C. (Director West Australian Pioneers, Limited).
F. H. D. Man, 7, Mincing Lane, E.C. (Director Golden Plum Consolidated Gold Mines, Limited).
Henry William Tugwell, Crowe Hall, Bath.
One Director, nominated by the Vendor, will join the Board after Allotment.
Managing Director in Australia.—Louis Wills, Coolgardie.
Bankers.—Lloyds Bank, Limited, 72, Lombard Street, E.C., and Branches.
Solicitors.—Messrs. Wilson, Bristowe, and Carpmael, 1, Copthall Building, E.C.
Brokers.
Messrs. Malcolm Cooke and Lemon, 65 and 66, Old Broad Street, E.C., and Stock Exchange.
Messrs. Hardie and Turnbull, Edinburgh.
Auditors.
Messrs. Ford, Rhodes, and Ford, Chartered Accountants, 81, Cannon Street.
Messrs. Ford, Rhodes, Ford, and Co., Perth and Coolgardie.
Secretary and Offices.—C. O. Greenwell, 39, Old Broad Street, E.C.

ABRIDGED PROSPECTUS.

The Company has been formed for the purpose of acquiring and developing four mining leases, numbered 1468, 1467, 1469, and 1601, at Hannan's Find, in the Kalgoorlie Gold Field, Western Australia, comprising an area of 96 acres or thereabouts, and held on the usual mining lease granted by the Government of Western Australia. The property is situated about half a mile south-east of the Brownhill, Brownhill East, and Brownhill Consolidated properties, and about one mile from Great Boulder, and the reefs which run through the leases are stated by experts to be situated in the south-east extension of the Brownhill line.

Mr. J. Wilson Archibald, M.A.I.M.E., Superintending Engineer of the Hannan's Find Mine Proprietary Gold Mines, in his mail report, which accompanies the Prospectus, dated 2nd November, 1895, says:—

The outcrop of four lode formations is exposed in several coiteans throughout the property. . . . .
These lode formations vary in width from 20 to 30 feet. . . .
He had also previously cabled as follows :—
The situation of the property is all that can be desired, in direct extension of the lode Brownhill, geological formation is similar, the reefs on the property amount in number to four, the lode has been proved to a depth of 60 ft., the lode carries gold in paying quantities, lode opening up well, width not yet determined, at present time 30 ft.
Mr. Gerbard, a Stockfield M.E., a well known authority on the Hannan's fields, in his report by cable (November 12, 1895), says :—"I have examined the mine and can recommend it. . . . . I consider it a most valuable property. Mr. Leslie A Norman, who also reports favourably on the mine, in reporting in September, 1895, on Leases Nos. 51 and 175, at Hannan's (see Sir John Forrest Co.'s Prospectus, the "Times," 11th October, 1895), says :—
It is incontestable that, with equal area, the group of mines within the Hannan's Gold Belt have no parallel on the field, and I make this assertion advisedly, developments in a large number of mines having proved the existence of extensive bodies of very high grade ore.
Mr. Louis Wills, General Manager Wills' Consolidated Gold Mines, now in London, who left Coolgardie the end of December, and is acting as agent for the owners of the property, writes to the Directors :—
February 11, 1896.—The total length of the claims is 5803 feet, and the area is 96 acres. Costean pits and trenches have disclosed four lodes running parallel with the length of the leases. The average width of the lodes, so far as at present proved, is over 20 feet, but none of the crosscuts are yet through the reef formation. There are three shafts, respectively 2, 50, and 60 feet deep. At the bottom of the 60 feet shaft a large body of high grade ore, going 20 ounces to the ton, has been opened up. In the upper workings the ore runs from 15 dwts. to 3 ounces to the ton. From the general surroundings, as well as from the ore disclosed by present developments, the property is very valuable.
Whereas the capitalisation (par value) of the Hannan's properties ranges from £3000 to £7500 per acre, the capitalisation of this company is £.8,822 per acre.
The area of the property being so large, it is not intended that the Company should itself work the whole of the ground. It is proposed, in the first instance, to develop one of the leases, bring it to the point of making returns, and then sell it as a going concern at a substantial profit.
The Vendor (who will pay all expenses up to the first allotment of Shares, and is reselling at a profit) has fixed the price to be paid for the property at £145,000, payable as to £58,333 in fully-paid Shares, as to £30,000 in cash, and as to £56,667 in cash or Shares, as provided by the contract for sale; 3,000 Shares are thus left available for providing Working Capital.
For Contracts, see full Prospectus.
The originals of the Reports above quoted, together with copies of the Memorandum and Articles of Association and of the Contract for Sale to the Company, can be inspected by intending subscribers at the Offices of the Solicitors of the Company.
Applications for Shares should be sent to the Bankers of the Company, or to the Secretary, together with a deposit of 2s. 6d. per Share.
Copies of the Prospectus and Application Form can be obtained from the Bankers, Solicitors, and Brokers, and at the Offices of the Company.
London, March, 1896.

THE EVOLUTION OF THE LEAD PENCIL.

THE lead pencil is an article which is generally used without much thought as to its method of production; and yet this small but invaluable factor in modern life has had an evolution of its own. A history of its development, from the rudimentary form it assumed centuries ago, up to its present state of perfection as a writing and drawing instrument, would be a very interesting theme for literary treatment; and few names would occupy a more honourable position in the narrative than that of Hardmuth. Mention of the name recalls at once to mind the Joseph Hardmuth who invented the process by which the Cumberland graphite was superseded by a composite substance more suitable for its purpose at the same time that it was more easy of access, and the flourishing pencil manufactory in Austria—the one reflection the compliment of the other, since the prosperous and widely-reputed producing business was founded by and built upon the efforts of the inventor. The firm has been established for several years over the century, and we are reminded of the fact by the appearance, in English form, of a souvenir of the centennial celebrations which took place at Budweis in November of 1890. So auspicious an event as the completion of a 100 years in the career of so celebrated a business house could not be allowed to pass without notice, and accordingly occasion was taken by the heads of the different branches and by the staff to give expression to the cordial relationship existing between them, and to make a pleasant and graceful interchange of mutual congratulations. In the course of the proceedings the highest official in the House, Mr. Gustav Demel, made a very interesting speech, in which he gave a concise and pithy history of the perfection of the lead pencil. A translation of his remarks now appears in English for the first time in pamphlet form, supplemented by some admirable photographs illustrative of the various stages in the troublous career of a lead pencil, from its primitive existence in lumps of lead and blocks of cedar, to the rounded and polished *crayon*, ready for use by the draughtsman or the shorthand writer. Mr. Demel, in the course of his remarks, lightly sketched in the principal features in the history of the article in question, commencing with the earliest efforts at an oblong piece of lead or silver for use in scratching upon a smooth surface covered with a layer of chalk or powder; passing then to the new departure in composite taken by the founder of the house of business under his management; and ending with a brief description of the finished article in the form familiar to the modern mind. That the operations of the factory have vastly extended is shown clearly enough by the fact that the firm produces annually 300,000 gross of pencils, the greater number of which are wrought in cedar wood. Among the customers whose patronage contributes to support this extended scale of production may be mentioned the British Government and Colonial offices. For ourselves, we have read the pamphlet with much interest, since it throws considerable light upon a rather obscure, but highly interesting, branch of industrial activity, and the artistic way in which the work has been got up is another strong recommendation to the general reader's attention.

THE INSTITUTION OF MINING AND METALLURGY.—Session 1895-96.—An extra meeting of the fifth session will be held on the evening of next Wednesday, in the Lecture Theatre of the Geological Museum, Jermyn-street, S.W., at 8 o'clock.—Agenda: To receive and discuss the following paper—"Notes on the Cripple Creek Gold Fields, Colorado," communicated by Mr. Claude Vautin (*Member*). It is expected that several gentlemen from Cripple Creek will attend and take part in the discussion.

The directors of the BRITISH SHARES INVESTMENT CORPORATION (LIMITED) have, in respect of the quarter ending March 31, declared dividends upon the preference shares at the rate of 6 per cent. per annum, ordinary shares at the rate of 10 per cent. per annum, deferred shares at the rate of 10 per cent. per annum, payable less income-tax on April 1 next at the banking house of Messrs. Glynn, Mills, Currie, and Co., 67, Lombard-street, E.C., on presentation of coupon No. 7 attached to the preference and ordinary share warrants, and coupon No. 8 attached to the deferred.

The SHEBA GOLD MINING COMPANY (LIMITED) notifies that a dividend of 1s. per share, free of income-tax, will be paid on April 16 to all shareholders on the register on March 31. The register of shareholders will be closed from March 31 to April 16, both days inclusive.

ROBINSON'S RANDFONTEIN GOLD MINING COMPANY (LIMITED).—The London agents, Robinson South African Banking Company (Limited), notify that intimations of the distribution of the bonus shares of the Block A Randfontein Gold Mining Company (Limited) to shareholders registered on November 14, 1895, have been posted.

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

ACHILLES.—Cable from the managing director of the mine with regard to the February crushing:—"560 tons (yielded) 350 ounces (gold); cost £740. Have had to hang up 10 stamps (for repairs). Condition and prospects of the workings are most encouraging."

ANGLO-MEXICAN.—Advices to hand report the output for the month of February as follows:—"$75,000 bullion; $3000 concentrates; 1500 tons, 28 days run."

BAYLEY'S REWARD NO. 1 SOUTH.—The following cable, dated the 25th inst., has been received by this company's London office from its head office at Melbourne:—"The stopes continue to look well."

BARRETT GOLD.—Cablegram from mine (delayed in transmission) says:—"February gold return, 571 ounces."

BLACK REEF PROPRIETARY.—The following cablegram has been received from the head office:—"Assay unfavourable, expect meet chute crosscutting; the width of reef is 2 feet, of greatest importance to crosscut; we have begun crosscut to north and to south to intersect rich chutes of ore."

BROKEN HILL PROPRIETARY.—The manager cables that for the week ending the 26th inst. 7708 tons of ore were treated, yielding 426 tons of lead, containing 145,532 ounces silver.

CENTRAL CHILI COPPER.—The directors have to-day received the following from their manager at Panulcillo by cable:—"Result of work for month of February: Mines produced, 1000 tons; ores bought, 930 tons; ores smelted, 2450 tons; regulus produced, 283 tons; net profit for the month, £635."

COETZEESTROOM ESTATE.—The following telegram was received from the manager this morning:—"Quartz reef discovered on Hilda. The outcrop assays 7 ounces of gold per ton."

CORSAIR CONSOLIDATED.—The directors have been informed by cable that the titles to the above properties are complete, and that the leases have been transferred to the company.

CONSOLIDATED MURCHISON.—Cable states:—"Crushed 884 tons, obtained 523 ounces of gold."

GILPIN GOLD.—The manager cables as follows: "The new stamps are working well, crushing in first-rate style. The mill is working night and day."

DAY DAWN BLOCK AND WYNDHAM.—The London office have received the following cablegram from the general manager at Charters Towers, giving the result of the crushing for the fortnight ending the 21st inst.:—"Tons crushed, 1030; yield of gold, 1049 ounces; approximate value, £3625; fortnight's expenses, £1910."

DARIEN GOLD.—Copy of a cablegram received from the manager, Mr. Woakes:—"Crushed 458 tons, obtained 336 ounces gold. Mill stopped for putting new winding gear in shaft and new steel shaft for air compressors."

GOLDEN CROWN.—The following cablegram has been received from Mr. Charles Kaufman, the consulting engineer of this company:—"The disturbance in the reef in the north drive in the lower workings of the mine, as mentioned in manager's report of February 3, has discontinued. The vein is compact and well defined, again varying in width from 2 to 3 feet. The property is a 2½ ounces property. The developments of the mine fully justify the expectations which have been formed. The property is a permanent one, and of undoubted value."

GOONGARRIE.—All the heavy portion of the machinery has arrived in the colony, and is now on the way to the mine.

GREAT BOULDER PROPRIETARY.—Copy of cable received from the manager:—"Struck a reef 4 feet thick, 200 feet level in the main shaft. Struck a reef 5 feet thick, 100 feet level, No. 4 shaft. Results of assays will follow; have not yet received."

HANNAN'S BROWNHILL.—The following telegram has been received from the mine:—"The new machinery is working well. Barrel amalgamation will be started to-morrow. Have found the vein on the 180 feet level. There are 4000 gallons of water in the 24 hours in well."

HANNAN'S GOLDEN GROUP.—Cablegram from Mr. C. Kaufman, the consulting engineer:—"Have had first mill test at Leviathian mill of 5 tons porphyric quartz. The value of the ore according to the mill test was 3 ounces 13 dwts. per ton."

KABOONGA.—The following cable has been received from the mine in reply to enquiry as to time required to complete the new rise:—"Six weeks. Washing as occasion offers; pushing main drive which is now in 411 feet; work proceeding steadily."

KANGARILLA SILVER.—Information received by cable from mine, March 24:—"*Re* value of ore now shipped, first 200 tons £1850 (equal to £9 5s. per ton). Assays of second 200 tons not yet finished.

LIMERICK.—The manager reports Lease No. 1452 (Nonpareil):—"The complete fittings for saw-milling plant have come to hand, and everything is now ready and fixed in connection with same. Condensing plant working satisfactorily."

MENZIES GOLD REEFS PROPRIETARY.—The following cable information has been received from the manager at the mines:—"Have started to crush.—Friday claim. Water shaft stone battery working quite satisfactory. There is no change to report at the mines."

NERBUDDA COAL AND IRON.—The sales of coal for the month of February were 2207 tons.

NEW GORDON DIAMOND.—Reports from the mine for the four weeks ending 21st inst. state:—"19,300 loads of blue ground treated, yielding 2246 carats of diamonds."

SALISBURY MURCHISON.—Copy of cablegram received from the manager, Mr. Edwin Wattis:—"Connection has been made with 40 feet levels. Have cut vein. Lode fairly rich. Agamemnon shaft down 110 feet."

SAN SALVADOR SPANISH IRON ORE.—The s.s. *Mardy* sailed from Santander on the 21st instant with a cargo of this company's ore for the Tyne.

SHEBA ALLIANCE.—The mine superintendent, under date of March 24, cables as follows:—"Have cut a vein 2 ounces per ton, 3 feet thick; think we shall soon cut the Sheba lodes. Resident manager of Sheba has formed a decided opinion, Sheba Alliance as good as any property on Sheba Hill."

SIMMER AND JACK.—Last month's profit was £7653.

ST. GEORGE.—The directors have received from their manager the following cablegram:—"Discovered good gravel deposit, extent unknown."

TREASURY.—The following cablegram has been received from Johannesburg:—"Will commence crushing April 1."

VAN RYN.—The following cable has been received from Johannesburg:—"The profit for last month on milling was £726; ditto, on cyanide operations, £779; total, £1505."

WASSAU (Gold Coast).—Cablegram have been received in London advising remittances of 300 ounces bullion and a yield of 1 ounce 6 dwts. per ton.

VICTORIA ASSOCIATION (Charters Towers).—The following cablegram has been received:—"Dividend 6d. per share, payable April 7, and 196 tons crushed yielded 718 ounces gold."

WELD-HERCULES.—The following cable from the manager, dated 21st inst., has been received by the directors:—"Struck an important body of ore in the north of main shaft; crushed 10 lbs., yielding 1½ ounce; posted gold as sample." This is equivalent to 336 ounces to the ton.

WEMMER.—Cablegram states:—"Dividend declared. Amount is not fixed. Payable to shareholders registered March 31. Transfer books will be closed from April 1 to 9 inclusive. Further particulars will be cabled."

YALGOO PUBLIC BATTERY AND GOLD.—The directors have just received cable advice that the transfer of the property has been effected.

ZEEHAN-MONTANA.—The following cablegram has been received from Hobart, dated 24th inst.:—"Have shipped per North German Lloyd steamer 175 tons of silver-lead ore containing about 122 tons 10 cwts. of lead and 15,750 ounces of silver."

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

CLARK'S CONSOLIDATED (LIMITED).

The following is the report of the directors:—In obedience to a wish expressed by many of the shareholders, the directors have pleasure in submitting an interim report, together with a schedule of the interests belonging to the company, and a statement from the South African managing director giving a few particulars of the development which has been accomplished to date of last advices. The company was incorporated on April 11, 1895, and as soon as the necessary preliminary work was completed no time was lost in appointing officials to represent the company and to take the requisite steps to obtain transfer of the properties which had been acquired. Owing, however, to the mining claims being scattered throughout no fewer than 13 different districts, there was considerable delay in the completion of the transfer of some of the properties, and it was not until November 2, 1895, that the last of the titles were registered in the name of the company, and matters put in a position to permit of development being actively proceeded with. The directors are pleased to be able to announce that there are now 3080 mining claims registered in the name of the company, this being 428 in excess of the numbers given in the prospectus, the balance consisting chiefly of the surplus assets of the Brand-Grey Syndicate, which were handed over to this company without any extra payment, in accordance with the terms of the agreement between that syndicate and Clark's Consolidated. These 3080 claims (of which there are still 100 to locate) are situated in the most important gold districts of Matabeleland and Mashonaland, and according to the reports which have been received, the directors consider that the shareholders are to be congratulated on the possession of such large and promising assets. In addition to the mining claims referred to above, the company owns numerous other interests as detailed in the Schedule of Properties, some of which are believed to be, or will ultimately become, very valuable. With regard to operations on the properties, the directors are pleased to submit the following report received from Mr. R. Williams (the South African managing director), from which it will be seen that a good deal of useful work has been done during the few months which have elapsed since the properties came into the possession of the company. It is anticipated that the annual general meeting will be held in the latter part of the year, when a further report will be issued and accounts submitted.

RAND EXPLORATIONS (LIMITED).

The following circular has been issued to the European shareholders in this company:—"In the circular, dated November 19, shareholders were informed that owing to the two Sullivan diamond drills which the company had purchased in Chicago not having been shipped at the time anticipated, delay in the commencement of work had taken place. This delay has unfortunately been considerably extended by the political disturbances in the Transvaal and the great scarcity of native labour. I am in receipt, however, this morning from the head office of a cable message informing me that one drill has started work, and I anticipate receiving intelligence of the other drill very shortly. The company's employés have been occupied, pending the arrival of the drills, in making all necessary preparations, so that no delay should occur, and I expect to receive at regular periods reports of progress which will be duly communicated to the shareholders. Mr. Boucher, Chairman of the company, left for South Africa three weeks since, and will shortly be himself superintending the company's operations."

WITWATERSRAND GOLD MINING COMPANY (LIMITED).

The London agents have been advised by cable that the proposal to increase the capital of the company to £325,000 has been sanctioned by the shareholders at the extraordinary general meeting held at Johannesburg on March 19. The 75,000 shares are to be dealt with as follows:—To existing shareholders *pro rata*, 62,500; held in reserve, 12,500. The price of the present issue to be £4 per share and all shareholders on the register on April 7 will be entitled to apply for the new shares in the proportion of 25 shares for each 100 of present holding; fractions will not be considered. The share register will be closed on April 7, and applications will be received until the evening of April 11.

ELANDSFONTEIN NO. 2 GOLD MINING COMPANY.

The share certificates for shares in this company are now ready, and will be exchanged for allotment letters and bankers' receipts for the amounts paid on application and allotment (1s. per share), together with the share certificates for shares had in the old company, the Southern Geldenhuis (Limited), now in liquidation.

HARQUAHALA GOLD MINING COMPANY (LIMITED).

The directors have entered into an arrangement with the Brownhill Proprietary Company, whose mines are situated about half a mile from the company's properties, whereby Mr. Robert M. Raymond undertakes the management of both companies' properties.

— The offices of the GENERAL GOLD EXTRACTING COMPANY (LIMITED), the ENGLISH AND FRENCH GOLD MINES SYNDICATE (LIMITED), the FRENCH NORTH RAND ESTATES AND GOLD MINING COMPANY (LIMITED), the LELAND STANFORD GOLD MINING COMPANY (LIMITED), and the FRENCH SOUDAN GOLD FIELDS AND EXPLORATION COMPANY (LIMITED), have been removed to 3, Clement's Lane, Lombard-street, E.C.

— The London agents of the BLOCK B. LANGLAAGTE ESTATE GOLD MINING COMPANY (LIMITED) notify that the dividend warrants for the dividend No. 4 of 8 per cent. on the preference shares have been posted.

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JAMES R. FOWLER, Esq., 14, King William Street Adelaide; or
GORDON WILSON, Esq., The Australian Gold Recovery Company (Limited), Charters Towers, North Queensland.
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COMPANIES AND LEGAL ANNOUNCEMENT.

*** Advertisements are inserted in this column at the rate of 9d. per line, with a minimum charge of 7s. 6d.

THE CENTRAL BUFFELSDOORN GOLD MINES (LIMITED).

NOTICE IS HEREBY GIVEN, that the ANNUAL GENERAL MEETING will be held at JOHANNESBURG on FRIDAY, 10th APRIL, 1896.

F. J. ASBURY,
London Secretary.

8, Old Jewry, E.C.

DIARY.

Monday, March 30.

Palmarejo Mining Company (Limited), 32, Old Jewry, 12.
Kanya Exploration Co. (Limited), Winchester Ho., 12.30.
Muntz's Metal, Birmingham, 1.
Don Pedro Gold Mining Company, Winchester House, 3.
Madagascar Queen's Concession, Cannon Street Hotel.
Paarl Central, Johannesburg.

Tuesday, March 31.

Natal Land and Colonisation Co., 41, Threadneedle St., 12.
Ooregum Gold Mining Company, Cannon Street Hotel, 12.
Consolidated Gold Fields of South Africa, Can. St. Hotel, 12.
Australasian Gold Trust (Limited), Winchester House, 12.
New Elkhorn Mining Company (Limited), Win. House, 12.
Transvaal Gold Exploration, Cannon Street Hotel, 2.
Almada and Tirito, 6 and 7, Queen-street-place, 2.30.
New Midas, Johannesburg.
Lisbon-Berlyn.

Wednesday, April 1.

Bank of Africa, Cannon Street Hotel, 1.
Institution of Mining and Metal., Geo. Mus., Jermyn-st., S.

Thursday, April 2.

Beaconsfield Diamond Mining Co., Winchester Ho., 11.30.
Thistle Reef Gold Mining Co., Cannon Street Hotel, 12.30.

The Mining Journal,
RAILWAY AND COMMERCIAL GAZETTE:
An Illustrated Record of Mining, Metallurgical, Railway, Financial, Industrial, and Engineering Progress.

ESTABLISHED IN 1835.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, published every SATURDAY MORNING, price SIXPENCE, is recognised throughout the World as being the oldest, most influential, and most widely circulated Journal devoted to the interests which it represents. It circulates

ALL OVER THE WORLD,

Amongst Mine Owners, Capitalists, Investors, Mining, Metallurgical Engineers, Manufacturers, &c., &c.

THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE has correspondents and sources of information in almost every quarter of the globe. Its policy is absolutely independent; its circulation is cosmopolitan.

THE MINING JOURNAL is neither controlled, nor is any interest in it held or exercised, by any mine owner, speculator, or syndicate; and it is in no way connected with any share-dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing literary contributions should be addressed to "THE EDITOR." All matter intended for insertion must be written on *one side of the paper only*. The return of rejected manuscripts cannot be guaranteed. The Editor invites correspondence and items of news or information from readers in all parts of the World.

TO SUBSCRIBERS.—The Annual Subscription to THE MINING JOURNAL, including postage, is for:—

The United Kingdom, £1 4s.;
Abroad, £1 8s.;

payable half-yearly in advance. It can be purchased at all Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.

TO ADVERTISERS.—The following is an abbreviated Scale of Charges for Advertising:—Companies' Prospectuses, £12 12s. per column, or £20 per page; Companies' or Legal Announcements, 9d. per line, with a Minimum charge of 7s. 6d; Sales by Auction, Publications, For Sale, Wanted, &c., &c., 3d. per line with a Minimum charge of 4s.

Displayed (Trade) Advertisements of 2 inches in depth (or more), Single Column measure, will be inserted at the following rates:—For 52 insertions 2s. 6d. per insertion for each inch in depth; for 26 insertions 3s per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion for each inch in depth. Terms for special positions and contracts may be had on application.

*** ADVERTISEMENTS (which should in all cases be sent direct to THE BUSINESS MANAGER) can now be received for the forthcoming issue of THE MINING JOURNAL, RAILWAY AND COMMERCIAL GAZETTE, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C until 9 p.m.

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LONDON: MARCH 28, 1896.

THE PROSPECTS OF A COAL STRIKE.

THE agreement which terminated the great coal strike of 1893 will expire on July 31 next, and the question which now agitating the minds of the principal colliery owners of the Midlands is whether they can continue to pay the increase of 30 per cent. over the standard rate of wages then accorded to the men belonging to the Miners' Federation. This federation comprises the districts of North Wales, Lancashire, Yorkshire, Derbyshire, Notts, Leicester, Warwick, Somerset, and Cumberland, in all a total in round numbers of 325,000 men, and our readers will remember that the chief doctrines upon which the struggle was fought were whether the rate of wages should be regulated by the demand and price obtained for coal, or whether the reverse of this sound though old-fashioned axiom should rule, and the selling price of coal be determined by the rate of wages. This latter idea is so utterly fallacious that a moment's consideration will show that it is untenable, although since the great strike the leaders of the Miners' Federation have succeeded in enforcing it, thus dealing a blow to the coal trade of Great Britain, from which it can hardly ever hope to recover. The victory was won owing to the superiority of the men's organisation compared with that of the colliery owners. These latter were divided by personal jealousies, varying markets, and varying facilities for transport; and we fear that only the severest lesson, amounting even to a disaster, will teach them the necessity of thorough organisation and combination.

In former times, before the introduction of such perfect transport facilities as are now in general use over the whole world, any variation in the output of coal from British pits would immediately affect the whole coal industry, and, to a certain extent, the limitation of the home output would increase the price obtained for the coal, and in consequence a higher rate of wages could be given. This, however, is no longer true; for if we look abroad we see new and extensive collieries being opened in Germany, Belgium, France, Russia, Japan, Borneo, India, the Cape, New South Wales, New Zealand, the United States, Vancouver, and Alaska, the net result of which is that every ton of decreased production at home means an extra ton of increase abroad, and a consequent diminution in the aggregate amount now paid in wages to the British Collier. In support of this statement we have figures before us showing that good steam coal can be bought for shipment in cargoes in America at under 8s. f.o.b.; in Australia the price is between 6s. 6d. and 7s. f.o.b.; in Calcutta fairly good coal can be bought for about 10s. f.o.b.; and in Japan for cargo shipments the price is between 8s. and 9s. f.o.b. These figures cannot fail to have an effect upon the coal trade, and we find that the prices fixed for contracts for the supplies of coal to steamers at Singapore during this year were 24s. 6d. for Welsh coal, 18s. for Japanese, and 15s. 6d. for Labuan (North Borneo) coal, and many of the large steamer lines running to the East are now using foreign coals in preference to English, owing to the low cost, and unless freights from England keep very low, it is certain that within a measurable time English coal will be finally driven out of all markets beyond Aden. Turning to another quarter of the world, we find that for several years an increasing business has been done at San Francisco in Welsh anthracite coal, but this market is now being affected by the discovery and development of coal in Vancouver and Alaska, while anthracite coal is being offered from Tonkin. It is evident from the above that any attempt on the part of the colliers at home to restrict our output in order to raise the market price would be simply suicidal, and would certainly end in driving away trade, and benefit only the employers and labourers of other countries. At the present moment there are some 4000 coal pits at work in England, and we should, we think, be within the mark if we said that at least half of them were being worked at a loss. In addition to these, some 40 new pits are being sunk, each one fitted with every modern engineering appliance for turning out large quantities at a low cost, and so keeping down the cost of production. In other words, all that can be done by engineering skill and mechanical appliances to enable the competition with foreign coal producers to be kept up is being done, but the resources are limited, and unless the efforts of owners and capitalists to keep a fast hold of the coal trade are backed up in a generous spirit by the men themselves, a catastrophe is inevitable.

The word capitalists has, perhaps, an unwelcome sound in the ears of the men, but they must not forget that unless capital is invested in the development of any undertaking there will be no demand for labour. We have it on good authority that the cost of developing a colliery from first to last may be taken at 10s. for every ton of annual output, so that a colliery which produces for sale 500,000 tons per year represents a total capital of £250,000. Now, the men who invest so large a sum do not do so from a philanthropic point of view, just for the sake of benefitting a certain class of labour, however worthy that class may be. They must have interest for their money, and considering all the risks they undertake, and the necessity of including both interest and redemption of capital—for the life of a colliery is limited—no one would, we think, consider 10 per cent. per annum for their money anything but a reasonable return. This, on an output of 500,000 tons per year, and a capital of £250,000, represents 1s. per ton of output, and unless the output is kept up with great regularity, it follows that the interest on the money invested cannot be paid. This point was recently brought forward by Mr. PRITCHARD in his address to the Miners' Conference as an illustration of the greed of the owners in wanting to keep up and increase the output, in utter if not wilful forgetfulness of the fact that two-thirds, at least, of the money received for the coal goes into the pockets of the collier, and, consequently, if the owner benefits by an increased production, the workman does so in a far greater proportion.

The working cost of a colliery differs according to its situation and the conditions under which the coal exists, so that it is difficult to make a hard-and-fast statement as to the actual working cost. We quote, however, the figures of an average tabular statement, drawn up by a man of great ability and experience, who, assuming a colliery to be working full time—that is, six days per week—and wages to between 5s. 6d. and 6s. 6d. per ton, or (say) 6s., draws up the following table as showing the distribution of cost:—

Wages	69·26
Materials	15·26
Royalties on coal raised	7·70
Surface rents	1·52
Rates and taxes	3·15
Salaries and general expenses	3·11
	100·00

It is very evident, therefore, that nearly 70 per cent. of the whole cost is paid in wages, and these figures are practically confirmed in the very able presidential address of Mr. EMERSON BAINBRIDGE at the opening meeting of the Chesterfield and Midland Counties Institution of Mining Engineers, by the statement that "out of the total cost of a ton of coal the wages cost may be said to average 65 per cent."

With the pit in full work the daily wage of a collier under the old standard would vary, according to his ability, from 6s. to 6s. 4d. per day, and this compares very favourably with the prices received by foreign workmen, which in

Germany are from 3s. to 3s. 6d.; France, 3s. 6d.; Austria 2s. 8d.; and Belgium, 2s. 6d. to 2s. 8d. per day; while in Oriental countries, such as Borneo and Japan, the daily wage is a mere trifle in comparison with the above. At the present moment in Northumberland wages stand at 7½ per cent. higher than in 1871; in Durham 15 per cent. higher; in South Wales 12½ per cent. higher; and in Scotland about 15 per cent. higher; while in the districts under the Miners' Federation the wages are 30 per cent. higher, and will remain so until the end of July of this year. The argument of the British collier is not that 6s. per day is insufficient, but that, owing to slackness of trade, the pit only works three days a week, and, consequently, his weekly wage is only 18s. What he desires, therefore, is that the standard daily wage should be raised in order to make his weekly pay adequate. He wishes, in short, to make the slackness in trade and the consequent decrease in the demand for coal an excuse for an increase of wages, utterly ignoring the fact that it is far more costly to run a pit three days per week than it is to keep it in full work, and this on account of standing charges such as pumping, maintenance, repairs, &c. He forgets also that it is not only in the owners' interest, but to a greater extent in his own, to keep the output as great as possible in order to prevent the trade from passing to other countries, for, as we have already pointed out, every ton of decrease at home means a ton of increase abroad.

Touching the question of the number of days worked per week in some of the chief mining districts of England and Wales during the three months ending January 31, 1896, which are the best three months of the year, the figures are as follows:—

Lancashire and Cheshire	4·36	days per week
South Yorkshire	4·74	„ „
West Yorkshire	4·41	„ „
Notts and Derby	4·78	„ „
North Wales	4·03	„ „

On all hands we hear that the state of the coal trade is something awful. Screened Yorkshire house coal of excellent quality is sold at 4s. 6d. per 21 cwts. at the pit; Northumberland and Welsh coals are a drug on the market; and if this is the case during the winter months, what will the prices fall to in the summer? Last week we called attention to the closing of the Rainton Collieries in Durham, worked by the Marquis of LONDONDERRY under lease from the Ecclesiastical Commissioners, and the figures then given are very instructive.

The question is such a grave and intricate one that it can never be decided from a selfish point of view either by men or masters. On the one hand, the men must recognise the fact that if capital is to be employed in mining industries, a fair rate of interest must be paid for it; on the other hand, the masters must make the conditions of working such that a fair rate of remuneration is given to the men for their labour. Such an understanding can never be brought about by strikes, which, indeed, only widen the gap between capital and labour; a broad international view as affecting the trade of the whole country, and not a selfish individual one, distorted by the passionate utterances of paid agitators, is the only safe basis on which to form an opinion. No juggling with the hours of work or the rate of pay can affect the world's demand for coal, and any attempt to do so by such means is to show a childish ignorance of the social and economical laws by which the universe is governed.

We anticipate that the whole matter will be reopened in August on the termination of the present agreement with the Miners' Federation, and in view of this it behoves the masters to confederate themselves strongly together, for unless they, as a united body, can with their intimate knowledge of the whole question devise some *modus vivendi*, it is self-evident that the men, from their purely personal and selfish standpoint, will be unable to do so, and then we shall witness such a migration of the coal trade from this to other countries as will materially affect the welfare of the nation at large, and consequently invite interference by the Government.

ELECTRICITY IN MINING.

IN these days of fierce competition and "cut" prices, when the good old steady-going methods of our ancestors have long ago been found insufficient for us, it behoves the mine manager, along with everyone else, to call to his aid all the resources of science to help him to work with the maximum of efficiency and the minimum of expense. Within the last half-dozen years or so, it has been fully recognised that no more potent factor of economical work was to be found than the modern force—modern, that is, in its applications—of electricity. We have received from Messrs. SIEMENS and HALSKE, of Berlin, the well-known electricians, a pamphlet, beautifully illustrated, showing their most recent developments of the Transmission of Force by Electricity in Mining. They point out in the first place that the employment of mechanical power at the working face and at various other points underground has now become an absolute necessity in mining. The only available methods of transmitting such power are by means of steam, compressed air, water, and electricity. In long transmissions the effective power of steam is diminished by condensation and friction by as much as one-third, whilst the necessity of employing small and simple engines prevents the use of the more economical types. Steam, too, is objectionable underground, because it heats the working places, makes the air moist, and at times may interfere with the ventilation. Compressed air offers the advantage, on the other hand, of aiding in cooling and in ventilating the workings, a matter often of high importance; the efficiency of this system is, however, unavoidably low, very often under 50 per cent. Although at times, as in the case of a colliery producing more slack coal than it can dispose of, this may be a matter of secondary moment; at others it may, on the contrary, under different conditions, have a vital influence on the result of the operations. Hydraulic power is not conveniently applicable, except in workings above adit level, where the water can find its own way out, and even then the installation is costly and difficult to keep in order, whilst leaky joints are almost inevitable. Electric transmission, on the other hand, gives an efficiency of fully 75 per cent., whilst the conductors are light, pliable, and readily shifted; at the same time, electricity can be used as a safe and effective illuminant. Messrs. SIEMENS and HALSKE do not lay enough stress on the objection to the use of electricity—namely, that the accidental contact of the conductors may start a serious fire, or, in the case of a gassy colliery, produce a dangerous explosion. We may remark, by the way, that it is high time that the Coal Mines' Regulation Act took cognisance of the employment of electricity underground, and defined the conditions under which its use is, and those under which it is not permissible. The Home Office might as well do this now instead of waiting until some lamentable *accident*, as it would be called, involving the loss of valuable lives, forcibly calls their attention to this point.

Messrs. SIEMENS and HALSKE are, preferentially, adopting, however, the safest form of electrical transmission—the three-phase system—which dispenses with commutators and the sparking that is inseparable from their use. Three-phase dynamos and motors have, moreover, a very high efficiency, and can be employed in conjunction with currents of very high tension, so that they need conductors of correspondingly small sections; the fact that the three-phase system needs three conductors instead of two is thus fully compensated for. The writers point out that each system, both that of continuous currents and the three-phase, has its own special fields of employment, and they compare these systems as follows:—Continuous current dynamos present the advantage that it is an easier and simpler matter to couple them up in parallel. Continuous current motors can be overloaded further than three-phase motors before they are brought to a standstill. With the continuous current accumulators can be employed. For electric locomotives the continuous system is preferable, because the arrangement of the points with two wires instead of three is less complicated, and because a three-phase current cannot be transmitted through the steel rails. Finally a continuous current installation of small size is cheaper than a three-phase one.

Three-phase dynamos and motors can, on the other hand, be wound for higher tensions than can the other forms, whilst these high tensions are confined to the fixed portions of the machine, which admits of easy and satisfactory insulation. There being no commutator, the three-phase machine requires less attention. It is also less sensitive to sudden increases of current strength. Three-phase transformers are preferable to continuous transformers because they have no moving parts, and require no attention, this being a special advantage where electric lighting forms a part of the scheme.

A number of excellent examples of the application of both systems to actual mining operations are here given, and are specially important because they have been taken from actual practice. Electric pumping is done in a good many ways, though there is perhaps no better example of the advantages of electric transmission than is to be found in an electric sinking pump. This is a thoroughly compact and neat self-contained arrangement of plunger pump and motor carried in an angle iron frame, which is furnished with hooks that allow it to be readily hauled up or down as required. All engineers who know the trouble entailed by having continually to break and make steam and other joints for an ordinary sinking pump will appreciate the convenience of this arrangement. There are also examples of the more usual type of three-throw pumps actuated by an electric motor, either for the surface or for underground use, whilst a similar portable arrangement carried on a light truck has been used with advantage in driving downbrow inclines; in one case the three-throw pump has been replaced by a pair of centrifugals. In Japan an ordinary pumping plant, consisting of two forcing and one lifting sets, is driven electrically by means of the usual type of angle bob and pump spears.

Several different methods are illustrated of driving fans electrically, either by directly coupling the armature shaft to the fan spindle, or by connecting them by a length of flexible shafting on in other ways.

Winding engines in various positions have been driven by electricity; three-phase motors seem to be preferred for this class of work, although other types are used. One of the most powerful of these has an independent pair of drums and an electrical brake, and is capable of hoisting nearly 2 tons at a speed of 2000 feet per minute; smaller winding machinery of course offers no difficulty.

One of the most important applications of electricity is to underground haulage, for which this source of power offers decided advantage over any other. We have here examples of single rope haulage up inclines, of main and tail rope, and of endless chain haulage; it is easy to arrange the hauling drum or pulley well up above the level of the rails, so that the work of disconnecting the tubs automatically is performed under the easist and most advantageous condition. Electric capstans for handling heavy loads, drawing pumps or handling other heavy machinery in shafts at a low rate of speed, have also been built; a typical machine will lift 40 tons at the rate of 8 feet per minute.

Finally we have electrical drilling machines of two types. The first is an auger drilling machine of the kind used in coal or other soft rock driven by a motor completely enclosed in portable iron box, connection between the two being made by a length of flexible shafting. Percussion drills are worked in the same way, the flexible shafting driving a small crank shaft, on which a fly-wheel is keyed, and which compresses a pair of powerful springs, which, when released, strike the actual blow. It is claimed that this machine can bore a hole 1·4 inch in diameter into hard granite or quartz at the rate of 3 to 4 inches per minute, the maximum depth attainable being 6 feet, and the effective power required one electrical horse power.

The examples we have here quoted will, no doubt, suffice to show in the most practical manner possible the wide range of underground operations to which Messrs. SIEMENS and HALSKE have applied to electric transmission, and will, we hope, serve better than any amount of theoretical disquisitions to impress upon our readers the present importance and probable rapid future extension of this, the most recent form of power that has been made subservient to the purposes of the miner.

THE OOREGUM COMPANY.

THE report of the directors of the Ooregum Gold Mining Company has not created a favourable impression, and, in consequence, the shares have not been well supported. This, perhaps, was to be expected, for coming immediately upon the reports of the Mysore and the Nundydroog Companies, it does not compare favourably, either with the results of these concerns, or with the prospects which their positions foreshadow. One of the most encouraging features in the former reports was the evidence of the improvement in the quality of the ore. The results of the operations of the Ooregum Company, on the contrary, show a deterioration in the quality, though there has been an increase in the number of tons crushed. The following paragraph, though in some respects satisfactory, in other respects, is not greatly encouraging. "As compared with the results of the previous year, there was an increase in the quantities dealt with of 8666 tons of quartz, and 6416 tons of tailings. The quartz yielded 633 ounces, and the tailings 1262 ounces in excess of the amount obtained in 1894." This paragraph speaks for itself, and, therefore, needs no comment. Comparing the average grade of the quartz crushed with that of the previous year, we find that it was 1 ounce 1 dwt. 16 grains per ton, against 1 ounce 5 dwts. 12 grains, and adding the average value of the tailings—viz., 4 dwts. 9 grains, the total value of the ore shows an average of 1 ounce 6 dwts. of gold, compared with 1 ounce 9 dwts. 23 grains. After all, therefore, when we minutely examine the figures, we find that the falling off is not such a serious one—at any rate, not sufficient to cause any grave dissatisfaction or discouragement. The profit, at any rate, is a greater one than the profit for 1894—viz., nearly £128,910 6s. 5d., against £120,772 2s. 4d., or £8138 4s. 1d. increase. Furthermore, the dividends paid during the year have been maintained. In August last an interim dividend of 2s. on the ordinary shares, and 4s. on the preference shares, was paid, whilst in December a further 3s. was declared on both classes of shares. It is now proposed to pay a dividend of 2s. 6d. on both classes of shares, which will allow a balance of £529 15s. 3d. to be carried forward. The dividends for 1885 thus amount to 7s. 6d. per share, or 37½ per cent. on the ordinary, and 9s. 6d., or 47½ per cent., on the preference shares, being the same rates as were paid in 1894, besides placing £5000 to the reserve fund. The latter is in accordance with the provision which the directors suggest for the equalisation of dividends in future, a policy which we think the shareholders will unanimously endorse. A further satisfactory feature in connection with the year's operations has been the mining work accomplished. In nearly all departments, we are informed, there has been an increase in the quantity of work done. Coming to the various sections of the mine, it is not distinctly encouraging to be told that, though a considerable body of quartz has been opened up at Taylor's shaft, the reef has pinched. To the south, however, of this shaft rich quartz is already opened up for some 500 feet in length to the boundary, whilst still further south in the Champion Reef property, a rich chute is being developed from Rowe's shaft, and this reef dipping north should, the directors argue, be intersected before long in Taylor's shaft. Of course, this being merely theoretical is not substantial, and is not likely to give unqualified encouragement to the shareholders. At Wallroth's shaft the poor section of ground referred to in last year's report has not yet been passed through but the directors anticipate an improvement here shortly, for they feel encouraged in this hope that in the Mysore Mine a rich lode is now being developed at greater depth than Wallroth's shaft has yet attained, "showing that the lode, which is identical in both mines, continues valuable below any point yet reached in the Ooregum Mine." Proceeding from anticipations and expectancy to a surer ground of reliable evidence, we are informed that the prospects at Low's shaft have improved, and the superintendent is expecting good results from the operations now in progress. The exploratory work has resulted in the intersection of another part of the lode lying to the east in the 460 feet level south of Wallroth's shaft, which the directors say may result in the opening up of a large body of quartz. The appearance also of Munday's lode is very encouraging. The reserves of quartz have not materially increased during the last year. At the end of 1894 they were estimated at 69,178 tons, and at the end of last year at 70,488 tons, thus showing an increase of only 1310 tons. Taking the report as a whole, though it is natural, of course, that shareholders should feel disappointed with it, there is no reason, as we have said, for discouragement.

It is true that the mine has but little improved during the year, and that the anticipations indulged in 12 months ago have not yet been realised. The two points in the mine upon which the most sanguine hopes were based were Taylor's and Wallroth's shafts. In last year's report the directors thought that much better results might be looked for if the expected improvement took place in Wallroth's, and they also pointed to the splendid run of rich ore opening out in Taylor's Mine. Mr. JOHN TAYLOR thought there was every sign that the expected improvement would take place in the quality of the ore at the former place. Well, we now find that they have been disappointed, but it does not follow that their anticipations will not be realised during the current year; at any rate, it can be said that the evidence in favour of it is strong, and in mining, of course, we must be guided by appearances. The Ooregum Mine has had a brilliant career, and there is no evidence that that career is going to be suddenly cut off. The mine, as a matter of fact, is only emerging from its infancy, and is just attaining the vigour of youth, and is yet to enter upon a future in all likelihoods of still greater

prosperity, and is destined beyond the shadow of a doubt, to occupy for a long time, a position among the premier gold mines of India. It would not be out of place to publish here a table of the dividends which have been paid since the inception of the company, for it is certainly worthy of record:—

No. of Dividend.	Date when paid.	Nominal Capital.	Shares Issued.	Amount of Dividend per Share.	Total Amount Paid.
		£		s. d.	£
1	April 27, 1891	125,000 Ord.	125,000	1 0	6,250
		120,000 Pref.	120,000	3 0	18,000
2	Oct. 27, 1891	145,000 Ord.	145,000	1 0	7,250
		120,000 Pref.	120,000	3 0	18,000
3	April 27, 1892	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	2 6	15,000
4	Oct. 12, 1892	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	4 6	27,000
5	Dec. 22, 1892	145,000 Ord.	145,000	2 0	14,500
		120,000 Pref.	120,000	2 0	12,000
6	April 14, 1893	145,000 Ord.	145,000	3 0	21,750
		120,000 Pref.	120,000	3 0	18,000
7	Aug. 10, 1893	145,000 Ord.	145,000	3 0	21,750
		120,000 Pref.	120,000	5 0	30,000
8	Dec. 11, 1893	145,000 Ord.	145,000	3 6	25,375
		120,000 Pref.	120,000	3 6	21,000
9	April 24, 1894	145,000 Ord.	145,000	4 0	29,000
		120,000 Pref.	120,000	4 0	24,000
10	Aug. 14, 1894	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	4 6	27,000
11	Dec. 10, 1894	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	2 6	15,000
12	April 22, 1895	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	2 6	15,000
13	Aug. 28, 1895	145,000 Ord.	145,000	2 0	14,500
		120,000 Pref.	120,000	4 0	24,000
14	Dec. 19, 1895	145,000 Ord.	145,000	3 0	21,750
		120,000 Pref.	120,000	3 0	18,000
	Payable				
15	April 18, 1896	145,000 Ord.	145,000	2 6	18,125
		120,000 Pref.	120,000	2 6	15,000
		Total			£567,875

The above figures show dividends amounting to £1 17s. 6d. per share, or 187½ per cent. on the ordinary shares, and £2 9s. 6d. per share, or 247½ per cent. on the preference shares.

If the mine be not destined to pay similar dividends in the future it will not be for the want of energy and skill on the part of the directors and officials. Everything is being done that possibly can be done to ensure success. The directors have been using great efforts to reduce the expenditure, and in this they have been eminently successful. But they are not yet satisfied; they wish to meet with still greater success, and to this end they are using commendable exertions. For this, at any rate, the shareholders ought to be thankful, and it should impel them to impose confidence in those who are so ably and conscientiously safe-guarding their interests.

NOTES AND COMMENTS.

As we ventured to anticipate in our last issue, the meeting of shareholders in the Mysore Gold Mining Company, on Tuesday last, was of a very harmonious and pleasing character. The statement laid before the shareholders was, in fact, sufficient to ensure this. Not only is the result of the past year's working a very substantial profit for the proprietors, but, as Sir Charles Tennant, the Chairman, remarked, there is every prospect, in view of the recent discoveries, that this happy state of affairs will be eclipsed during the present year. It will be remembered that the income fell off somewhat during 1894 through a temporary reduction in the yield, but the increase in the 12 months under review more than compensated for this. In fact, the amount realised by the sale of the gold won in 1895 exceeded that of the preceding year by nearly £68,000, or, after making every allowance, the difference in the profits of two years was over £59,000. Even these figures might have stood higher had it not been for the extra expenditure of £4818, occasioned by the scarcity of water. Coming to the matter of dividends, we find that the amount devoted to this purpose was £141,455, a sum which enabled the directors to declare three dividends, the whole being at the rate of 47½ per cent., as compared with 25 per cent. in 1894. For symmetry's sake, it is to be regretted that the dividend paid during the year just concluded was not 2½ per cent. higher, in which case the previous year's figure would have been doubled, but the increase attained is sufficient absolutely to disarm criticism, and reflects very creditably upon the board and the management. The result becomes all the more pleasing upon the reflection that the exploratory works carried out during the past year, with the view of ensuring the permanent success of the mine, have been on an unusually large scale, and have had very favourable results. Thus, there seems every justification for the Chairman's statement that the current year's results will, in all probability, be the best ever recorded in the history of the company.

THERE seems to be a concensus of opinion that the forthcoming year will be a favourable one in the history of the Nundydroog Mining Company, seeing that the full benefit of the increased stamping power will be felt upon the returns, while the accumulation of reserves will ensure that it will be exerted to its fullest extent. A record of a highly satisfactory nature has also been established in the matter of drivage, since the 10,394 feet, which measures the amount of work done under this head during the year, is greater by 2313 feet than that accomplished in the preceding 12 months. In this connection the most important discovery made during the year has been at the 1030 north, where for a distance of 237 feet the lode averaged 3½ feet in width, with an assay value of 1½ ounce. There is considerable encouragement in this latest development to lead the management to push on the exploratory works with continued vigour, and it is evident from the tenour and contents of Mr. Edgar Taylor's speech that there is no indisposition on the part of the staff in India to accept the late discovery for all it is worth, as a favourable indication bearing on the company's probable future. Another satisfactory feature in the outlook is the fact that the expenses which have for some years now been continually incurred in perfecting and adding to the company's plant will now in great part cease; and this, taken with the fact that the company's reserve fund exists in the tangible form of Consols, may be cited to show that the company's position certainly possesses the attribute of financial stability. To the attainment of this last, the efforts of the directors have very generally been directed, and the cautious policy pursued by the board in not dividing the profits up to the hilt, but laying aside sufficient to meet all possible contingencies on the score of the permanent works, is one that, as it deserves the endorsement of the shareholders, will certainly redound to the company's permanent interests.

THE last state of the Transvaal question is worse than the first—at least, if the Stock Exchange interpretation of the position counts for anything. At the same time, there have been so many rumours of wars pervading the London financial atmosphere during the last four months that it would be rash to view the situation in any but the conditional mood. This last has, indeed, been the only safe attitude to assume for some considerable time now. Hardly has there ever been a period when the "bears" have had so rampageous a time of it as latterly. Waves of terrorist rumour have swept over the Exchange, depressing prices, unhinging the ordinary course of affairs, and spreading tribulation and dismay upon every hand. In the South African department the Transvaal complication have naturally served as a trump card for the "bears," who have played it with disastrous effect upon the industrial world, and with no less advantage to their own interests. Unfortunately, the difficulty of getting at or even near the truth lying behind the reports which are circulated, with so great an effect upon the markets, adds to the danger wrought by them. At the present time it is very difficult to take the proper discount from the statement as to the rumours which are now current in Pretoria, portending a sharp disagreement, if not an actual conflict, between the Suzerain power and the dependency. The only thing is to wait and see what change time will work.

THE directors' report of the Almada and Tirito Company, a concern which has passed through many phases of existence, not altogether with brilliant success, is one which, under the circumstances, is neither disappointing nor discouraging. On the other hand, it is not likely to excite much enthusiasm amongst the shareholders. However, the tenour of the statements contained in it was to be expected, for in the short space of less than a year nothing could have occurred much more substantial. The shareholders of this concern have been well drilled in the virtue of patience, and there is every likelihood that they will have to exercise it for some time to come. The conclusion at which one must inevitably arrive after reading this report is that the prospects of the Guadalupe Mine, to work which the company was reconstructed, are not without promise. For instance, we are informed that the present indications north and south of Wilde's shaft are favourable to further discoveries, whilst north from Taylor's shaft a valuable chute of ore, we are informed, 80 feet long, worth 2 tons per fathom, and 50 ounces of silver per ton, was passed through in the level which has been driven 70 feet, and south a distance of 101 feet. In addition, other similar chutes were met with, also containing good ore. Then about 20 feet south of Taylor's shaft the Europas lode forms a junction with the main lode. A former level was driven at a distance of 65 feet, and at the commencement some good ore was met with, whilst 2300 feet south ore has also been found in this lode, and the directors think there is every reason to hope that discoveries will be made in the intervening spaces. Taylor's shaft is now being sunk below the 150 feet level on a paying lode, yielding 2 tons of ore per fathom, of a value of 50 ounces of silver per ton. It will be continued to a depth of 250 feet, when further levels will be driven to open up the lode. The superintendent considers the prospects of Guadalupe encouraging, which is endorsed by the directors, who are hopeful that important developments will be made during the current year.

IT is plain enough from the Chairman's recent statement before the shareholders in the London and West Australian Exploration Company that the newly-reconstructed enterprise is going to be as broad in character as was the original concern. Indeed, its scope is, perhaps, somewhat more extended. Since the new company was formed the directors have taken occasion to extend the company's interest in a variety of ways, and to build upon the solid reputation which, in so short a time, the undertaking has attained in the colony. Prospecting parties are examining on their behalf some of the most promising districts in the gold fields, while agencies have been established at various stations likely to become centres of mining activity. The efforts have resulted, so say the directors, in bringing the organisation of the company up to a pitch before unequalled in the colony. Options have been secured over promising properties, and the developments undertaken upon them have uniformly resulted so satisfactorily as to justify the opinions entertained in regard to their value, and the step taken in acquiring them. The shareholders must pin their faith to the company's engineers and agents, considerably strengthened by the fact that their judgments have been confirmed by Herr Schmeisser, who was commissioned to proceed to West Australia to examine the company's properties. As to the value of West Australia as the *venue* for an industrial and financial enterprise, such as the London and West Australian Exploring Company, there can be no doubt, and it seems probable that if the matter depends wholly upon the profitable character of the company's sphere of operations, and the excellency and efficiency of its management and staff, the company will continue to be a successful concern for many years.

THE character and qualities of the Colonial Finance Corporation (Limited), as an industrial enterprise, would, perhaps, stand most clearly revealed in the simple but weighty fact that its directors have been able to return 100 per cent. upon the capital invested at the first annual meeting. That this sum should have been earned almost entirely within the year is very striking testimony at once to the unusual facilities now offered by West Australia for the profitable employment of capital, and to the earning powers of the Corporation itself. Even in the present City era, when phenomenal results upon company working are not altogether uncommon, the return of a company's whole capital in little more than a year is a result that the board and management have every reason to regard with that pride attaching naturally to a very exceptional, if not unique, performance. The very conservative method of dealing with the company's investments which the board have pursued is one greatly in favour just now in the City of London, and certainly one that appeals to the judgment as sound and prudent finance. In no case have shares been taken above par, when the company's interests were under valuation, and in many instances the market quotations have been adhered to; so that allowance has been made for the unfavourable, but not for the favourable, interpretations which the Stock Exchange gives of the company's investments. The directors attribute in a large measure their success to the "admirable manner" in which they have been represented in Australia by Mr. George Gray, who was able, owing to his long and varied experience in mining affairs, and to the fact of being very early in the field, to acquire, on very good terms, some exceptionally promising properties for the Corporation. So far as the future is concerned, the shareholders must have been glad to hear that in the Marques of Tweeddale's opinion there is every reason to expect an even better result to be placed before the shareholders at the next meeting.

THE vast section of the business world who are interested in the substantial development of Western Australia will have read with satisfaction the telegram sent from Australia early in the week, announcing that the first through passenger train from Southern Cross to Coolgardie arrived at the latter station on Monday last. The speed with which the railway construction has been carried on is shown by the fact that the works were completed three months ahead of the contract time, from which it may be judged that both in the Government circles and among the railway constructors the imperative necessity for supplying at the earliest possible date so important a link in the railway communication of the colony was recognised. There is no necessity to point out how great will be the effect of these additional facilities upon the industry at Coolgardie, where the whole colony of 30,000 inhabitants are dependent, not only for their sustenance, but for their working materials, upon outside sources of supply. Considerable discontent has been occasioned locally by the suspicion that the railway facilities already in existence have not been turned to the best account, while the equipment of the lines that have been in working for some time is not all that could be desired. The main cause for such feeling lies in the traffic block which has occurred at Freemantle, where, in consequence of the late heavy import shipments, the railway authorities have been compelled to restrict themselves to forwarding food stuffs. There is thus a large accumulation of mining machinery waiting to be sent up country, much to the wrath of the industrial fraternity at the capital mining town, who are anxious to start crushing operations, but whose batteries are lying dismembered in cases at Freemantle. The railway people have, moreover, communicated the cheering intelligence that two months, at least, will elapse before the traffic can be satisfactorily coped with. The sensation which this open-hearted communication has aroused in Coolgardie may easily be imagined, and the popular sentiment is being forced at high pressure into denunciatory diatribes against the Government, the railway people, and everybody concerned. Even the loss which West Australian mining has sustained through the delay should not, however, blind people to the difficulties against which the responsible officials have to contend, and the highly satisfactory statement which the Premier recently made as to his future administrative policy, afford every reason for the belief that the present inadequacy of railway equipment is only a temporary matter.

THE announcement that two new reefs have been struck upon the Great Boulder may have a very far-reaching influence upon the West Australian section of the mining market. We are still awaiting the West Australian boom, which was to come upon us with the sunshine of early spring. The financial prophets vied with one another in the earnestness and emphasis with which they forecast a general rise in West Australian shares during the early months of the year, and though it has not come yet, we are still only at the commencement of the period in question, so that there is abundant time yet for the general prediction to be realised. Meanwhile, the West Australian market has been in a state of quiescence. Dulness not collapse, has been the prevailing feature. Operators for both movements have been timid to a degree, investors, seemingly convinced that their shares were of intrinsic value, refusing to disturb the *status quo*. There is as much that is hopeful as the reverse about this general disposition to languidness. There have been enough tendencies in the air making for absolute collapse to severely try the strength of any market, and the passive resistance offered by the West Australian section is pretty conclusive evidence of the high opinion entertained by the public as to the intrinsic value of the shares in this department. The delay in crushing, caused by the lack of perfect railway communication, has undoubtedly something to do with the absence of enthusiasm on the part of the public for Coolgardie and Murchison shares. Even the strongest faith in their intrinsic value cannot but be somewhat affected by the knowledge that, owing to causes entirely unconnected with the mines themselves, a period, longer or shorter according to special circumstances, but in any case extending into months, must elapse before many of the companies are able to get into full operation. This is probably the

genesis of the impatient and unreasonable demands for immediate dividends that have lately been formulated by shareholders in West Australian mines.

THERE is reason at last, however, to believe that a revival in the West Australian market is impending, and the news with regard to the strike at the Great Boulder Mines may be instrumental in precipitating the movement. Great Boulder may be said, in metaphorical language, to be the pivot upon which the market turns, and its good or bad fortune would most probably give temper and direction to the whole series of groups in this department. If the *Western Argus* speaks correctly, "the Great Boulder still maintains its lead as the biggest gold mine in West Australia," and is in no danger of losing its supremacy. Situated in the very heart of the pick of the West Australian gold fields, with a territory measuring at least 100 acres, through which several lines of reef are known to run, the Great Boulder certainly appears to be among the very first of the properties in the colony as regards its potentiality for producing gold. It is little wonder, then, that it should take the lead in the West Australian section. The importance attaching to the recent discovery, therefore, is at once apparent, and if the assays following the brief announcement that a couple of reefs have been struck turn out to be satisfactory there is every reason to expect that the keenly anticipated revival will at last commence. There will, of course, be little opportunity for a movement of this kind before the Easter holidays with the consequent partial suspension of business, but between these early months and the summer recess there will be every opportunity for the communication of a more spirited tone to the markets.

THE MINING MARKET.

FRIDAY EVENING.

A slump in Kaffirs on alarmist reports from Pretoria.—General rise in West Australians.—Miscellaneous neglected.

ALTHOUGH the public has evinced little desire to operate in the Mining Market there is less reason this week to complain of inactivity, for in the South African market some sharp falls have occurred, whilst the West Australian section has developed decided strength. Political events were chiefly concerned in the former movement, and as these come within the chapter of accidents, there is no need to express surprise at the consequences they have entailed. With regard to the advance in Westralians, however, one is prompted to remark upon its unexpectedness, seeing that we are on the eve of the Easter holidays, and general anticipation had gone for a slack time.

Business was very quiet on Saturday, the principal topic of conversation being the result of the election of the Stock Exchange Committee, in the result of which the Mining Market was specially interested. The success of the seven Reformers must be accepted as an augury of benefits to come for the dealers in Mining shares, seeing that it was upon their grievances that so vigorous an opposition to the old régime was raised. The leading Kaffir shares were firm at their overnight advances, but it was rather confidently predicted that the loud talk of a further rise was only part of the game for enabling clever operators to unload. Subsequent events have proved the accuracy of this conjecture. Business in Westralians was dull, and there was little or nothing doing in Miscellaneous. On Monday, which was the last day of the End March account, business was restricted and prices generally lower so far as Kaffirs, Indians, and New Zealanders were concerned. There was, however, an increased business in West Australians, Great Boulders giving a decided lead. On Tuesday the carry over monopolised attention during the early part of the day and in the afternoon Kaffirs broke away on the appearance of the first of a series of alarmist cablegrams from Pretoria. The Consolidated Gold Fields circular proposing an increase of the capital had an adverse effect, and prices generally closed dull. Westralians were irregular, the Boulder group showing strength, whilst others were weak, Mysores were strong, but other Indians closed dull. On Wednesday in the absence of business Kaffirs were dull without conspicuous changes. West Australians, on the other hand, were distinctly good, and a general improvement was established. Broken Hills were weak and lower, and Indians were dull. Thursday was a day of sensation. The Kaffir Market opened flat on discouraging telegrams from Pretoria, published in the *Times* and improved upon by the evening papers, whilst later on in the day a highly coloured account of a massacre by the Matabeles served to further depress prices. West Australians, on the other hand, were particularly good. To-day's features have been more or less a reproduction of yesterday's. The South African news has been more circumstantial, and bears have not hesitated to make the most of it for putting prices lower. Closing prices, however, are considerably above the worst. The rise in West Australians has made further progress, and though there is not much business doing on public account, the tone is as hard as nails.

South Africans.

The flatness of the last two days is responsible for a general decline in quotations, though to a large extent these may be regarded as nominal, actual dealings having been restricted to the index stocks. The carry over on Tuesday was soon effected, average rates ruling round 7 per cent. Chartered were carried over at a considerably lighter contango than in the middle of the month, indicating a reduction in the bull account. On Monday, the price of Chartered touched five buyers, whilst this morning early the shares were offered at 4. The last price, 4¼, shows a loss of ⅛ on balance. Goldfields Deferred have been specially affected by the proposal to increase the capital by way of extinguishing the sharing rights of the managing directors. The shares were offered at 12 this morning, and close 1¼ down at 12¼. Gold Trusts have shed ⅝ at 8, and Goldfields Deep 1¼ at 8¾. Rhodesian properties generally have suffered on the latest news from Matabeleland. Rhodesia Exploring has fallen ¼ to 7½, Willoughby Consols ⅜ to 1¾, Mozambique ⅛ to 1½, Mashonaland Agency ½ to 2⅜, and Bechuanalands ¼ to 1⅝. Up to the present Mr. Barnato's presence in the Transvaal has not resulted in palpable benefit to the shares which he controls. A general decline is shown ranging up to ⅜ in the case of Reitfontein at 3¼ after a lower figure had been marked. Barnato Consols at 2⅞, George Goch at 2⅛, and Langlaagte Royal at 2¼ are all ⅛ down, whilst the losses in Barnato Banks at 1¹¹⁄₁₆, Crœsus at 1⅝, Ginsberg at 1½, Glencairn at 3⅝, May Consolidated at 2¹¹⁄₁₆, New Primrose at 5⅞, and Spes Bona at 1⅜ are all about ¼. The dividend has been deducted from Johannesburg Investments which close at 3⅛. Randfonteins looked liked going better at the beginning of the week, but they have been unable to stand up against the general slump and close ½ lower at 2⅞, with Langlaagtes ⅜ down at 5⅝. Robinson Banks at one time to-day were as low as 6½. East Rands were down to 6 this morning, but have rallied to 6¾, at which they show a loss of 10s. St. Angelo has declined ⅝ to 4½, New Comet ⅜ to 2⅝, Anglo-French Exploration ½ to 4½, and Kleinfontein ⅜ to 3⅝. One of the rumours in circulation on Wednesday was to the effect that Mr. George Farrar's bail had been cancelled. Rand Mines leave off 1⅜ down at 28½, though this is appreciably above the worst. Deep Level properties generally are lower, Nigel Deep at 1¹¹⁄₁₆, Roodepoort Deep at 2½, and Consolidated Deeps at 5½, being the chief sufferers. The Eckstein group is generally lower. Simmers have lost 2 at 20, Modders 1½ at 9¾, Nigel ⅛ at 3⅞, Henry Nourse ⅜ at 5⅞, Ferreira ½ at 18¾, and City and Suburban ⅜ at 4⅜. Crown Reef at 10¾, and Durban Roodepoort at 6⅜, are among the few shares which have withstood the shock, and close without change. Knights at 6⅝, Robinson at 9⅜, Van Ryn at 5⅝, and Village Main Reef at 6¼, are all ⅜ down. Transvaal Gold shows a loss of ⅝ at 5⅜, and a similar decline leaves Wolhuter at 7⅝. The foregoing are typical of the general run of changes. The small Lydenburg shares have not suffered appreciably, and Spitzkops have put on 1s., at 16s. De Beers have been a flat market, as much for political reasons as any others, and, after dipping to 26⅞, close ⅞ down, at 27. Jagers were good in the early part of the week, on the dividend announcement, and touched 10½. They close, however, slightly lower on balance at 10. St. Augustines have lost 2s., at 9s. 6d., and Gordons 9d., at 6s. 9d.

West Australians.

Continuation rates in this market were from 7 to 10 per cent. Although the tone all round is hard, the striking movements have been confined to the few leading shares in each group, other quotations being to a large extent nominal. The centre of interest has been the Hannan's group, a prominent lead being taken by Great Boulders on the strength of the cable announcement of the striking of fresh reefs of much richness. The shares have jumped ⅜ to-day, which leaves them over £1 better on balance at 7⅜ xd. Hannan's Brownhill have scored ⅝ at 7, Lake View ⅞ at 3⅛, Hannan's Proprietary ¼ at 1¹¹⁄₁₆, Hannan's Reward ⅜ at 3⅞, and Hannan's Oroya at 1⅜. True Blues have been sold by weary holders on the absence of news, and close ¼ down at 1¼, and declines are shown in Hannan's Napier at 1⅛, Golden Treasure and Golden Group both at 1⅞. Great Boulder Main Reef and Coolgardie Iron King have put on ⅛ at 1⅛ and 1⅜ respectively. Associated are the turn harder at 2⅛. A new baby may be expected here at an early date. The Menzies Group has come into renewed favour and some considerable gains are shown. Reefs are ⅛ up at 1⅜, whilst Gold Estates have put on ⅛ at 1, and Mining and Exploring ⅛ at 1⅛. In the White Feather group the eponymous shares are ⅛ better at 2⅛, and Wealth of Nations ⅛ up at 1⅞, whilst Hit or Miss are steady at 1¼. Hampton Plains have commanded considerable attention and leave off ¼ higher at 4¼. A feature of special strength has been Lady Loch, which closes ⅛ higher at 3⅛, the buying having been on the most reliable character. A marked recovery is shown in Mainland Consols, ⅛ higher at 2¹¹⁄₁₆. Golden Crowns are ⅛ up at 1¾. Some active dealings have taken place in Murchison New Chums, which have nearly doubled in value within the week, closing at ⅛. After the deduction of the 100 p.c. dividend, Colonial finance shares are nominally weaker at 3⅜. London and Globe have improved ⅛ to 2⅜, and a similar spurt is shown in goldfields at 7⅛. Special flatness attributed to forced sales, has reduced the price of W. A. and General Association from 4¾ to 3½.

Miscellaneous.

There has been much less doing this week in the Miscellaneous Group. Relapses of ⅛ or so are shown in Waihi at 6⅛, and Waitekauri at 4⅛. Other New Zealanders are on last week's mark. Charters Towers shares are firm, Brilliants having recovered the deduction of another monthly dividend of sixpence. In the Indian Group Mysores were particularly good on the meeting, bnt have since eased off, closing ⅛ down at 5⅞. Opregums have declined ⅛ to 3, and Champion Reefs ⅛ to 6¾. In the Copper Market small declines are the rule. Tintos have shed ⅛ at 18½, and Anaconda ⅛ at 6⅞. Tharsis have risen ⅛ to 5¼ on the announcement of a 17½ per cent. dividend. A dead set was made at Broken Hills early in the week, backed up by all manner of adverse rumours, but the shares are only ⅛ lower at 2⅛. Wentworths are unchanged.

STOCK EXCHANGE SETTLING DAYS.
CONSOLS.
Wednesday, April 1.
MINING MAKING-UP DAYS:
Saturday, April 11 | Saturday, April 25
MINING NAME DAYS:
Monday, April 13 | Monday, April 27
ACCOUNT DAYS:
Wednesday, April 15 | Wednesday, April 29

CORRESPONDENCE.

*** We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.*

PARDY'S SYNDICATE.

Last week, under the heading "Correspondence," we published a letter from the pen of Mr. John K. Leslie, containing suggestions which Mr. Pardy regards as reflecting upon his honour. Of course, our readers are aware that letters appearing in this column are not necessarily endorsed by us, and that we do not hold ourselves responsible for the views and statements of correspondents. Mr. Pardy has called upon us, and complained of the views expressed by our correspondent, Mr. John K. Leslie, and is prepared to make an unqualified contradiction of his statements. Being always desirous to do injury to no man, we trust our readers will keep their minds open on the subject, and we have, therefore, offered Mr. Pardy our columns in which to publish any facts relating to the matters which our correspondent has communicated. Mr. Pardy states that there is no truth in the suggestion that he requested Mr. Leslie to prospect the place and give him a favourable report. We are happy to publish this statement, especially as we do not think that any such interpretation should be placed upon our correspondent's statements.

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, MARCH 27.

Copper.

THE speculative market for G.M.B.'s opened steady, and a large business took place at rather better prices, s.o. rising from £45 10s. to £45 13s. 9d., and three months from £45 17s. 6d. to £46. The next day's transactions were also extensive, and spot realised from £45 10s. to £45 15s., whilst three months advanced from £45 18s. 9d. to £46 1s. 3d. The two positions touched £45 18s. 9d. and £46 5s. respectively on Wednesday. Thenceforward, we witnessed a reversal of the better tendency which had prevailed during the first three days, the easier quotations from America and the new political developments discouraging supporters of the article. Consequently, on Thursday sellers predominated, and down to £45 10s. was taken for three months, the close that day showing, however, an improvement to £45 13s. 9d. To day the tone was quite weak, and prices dropped very considerably, the close being quiet at £44 18s. 3d. to £44 17s. 6d. s.o. and £45 2s. 6d. to £45 3s. 9d. three months. Fine sorts are cheaper, but demand is not very active at present.

Tin

Opened quiet at £30 2s. 6d. cash Straits. There was but very little speculative interest shown, and transactions were only of moderate extent. On Tuesday cash changed hands at £30 5s. to £30 7s. 6d., and three months at £30 17s. 6d. to £30 13s. 9d. The same prices for cash were again paid on Wednesday, and £30 17s. 6d. and £30 18s. 3d. for forward. Thursday's market was dull at £30 3s. 9d. s.o. and £30 15s. to £30 17s. 6d. three months, and to-day after business at £30 15s. to £30 17s. 6d. three months the market closed steady at £30 5s. to £30 7s. 6d. spot and £30 16s. 3d. to £30 17s. 6d. three months. Billiton tin has improved £1 ¾ from the opening value—viz., from £1 38¾ s.o. and £1 36¾ three months to £1 38½ and £1 38¾ respectively, whilst Banca closes, as last week, at £1 37.

Pig Iron

Opened at 46s. 11½d. s.o. in Glasgow, declined to 46s. 8d., and rallied to 46s. 9½d. the same day. On Tuesday spot was dealt in 46s. 8½d. to 46s. 10½d., on Wednesday at 47s. to 46s. 10d., on Thursday at 47s. to 46s. 11d., and to-day at 46s. 11d. to 46s. 9d., closing dull at 46s. 8½d. s.o., with a month at 2d. more. Hematite is quoted this evening at 48s. 3d., and Middlesbrough at 43s. 4½d. Last week's Scotch shipments amounted to about 7000 tons, an improvement of 1400 tons over those of the same week of 1895.

Lead

Has fallen off in tone and value, and closes dull at £11 2s. 6d. soft iron, and £11 7s. 6d. English.

Spelter

Is much firmer, stocks being small everywhere. The close is at £15 10s. ordinaries, and £15 15s. specials.

Antimony.

Nothing new to report, the quotation remaining unchanged at £30.

Quicksilver.

Firsts are quoted £8 17s. 6d., and seconds £8 17s.

The following are to-night's (March 28) prices of metals:—

	£	s.	d.		£	s.	d.
Copper.							
Tough cake and ingot	43	15	0		43	0	0
Best selected	49	10	0		50	0	0
Electrolytic Copper	50	12	6		51	12	6
Sheets and sheathing					56	0	0
Flat bottoms					59	0	0
Chili bars (spot, & 3 months respectively)	44	16	3		45	2	6
Good merchantable,							
Copper tubes, seamless					0	0	7¼
Alloys.							
BRASS: Wire					0	0	5¾
" Tubes (solid drawn)					0	0	5¾
" Sheets					0	0	6
PHOSPHOR BRONZE: Alloys II.					78	0	0
" III. or (Cog Wheel Brand)					81	0	0
" VII.					83	0	0
" XI.					78	0	0
" Vulcan brand A1					72	0	0
DURO METAL					73	0	0
BULL'S METAL					65	0	0
Ferrobronze (Vivian's).							
Ingots per lb.	0	0	5¾				
Ordinary sheets, plates, bolts and bars	0	0	6¾				
Screw bolts and nuts	0	0	8¼				
Pump rods, plain	0	0	7¼				
" finished	0	0	10¾				
DELTA METAL: No. 4 (per ton)							
" Sheets and plates (per lb.)							
" Bars, round, square, flat (per lb.)							
" hexagon (per lb.)							
Tin.							
English, ingots, f.o.b.	84	5	0		84	10	0
" bars	85	5	0		85	10	0
" refined	86	5	0		86	10	0
Straits, spot and 3 months respectively	80	7	6		81	17	6
Australian spot, and three months respectively	81	7	6		81	12	6
Banca (in Holland)					81	17	6
TIN PLATES: Charcoal, best quality per box	0	14	0		0	17	0
" ordinary	0	11	0		0	13	6
" Coke, best quality	0	9	6		0	9	9
" ordinary					0	9	0

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

Iron.							
Pig, G.M.B., f.o.b., Clyde, spot					2	6	8½
" Scotch pig, No. 1 Gartsherrie					2	11	0
" " Coltness					2	13	6
" " Clyde					2	10	6
" " Govan					2	8	0
Bars, Welsh, f.o.b. Wales					5	5	0
Plates "					6	5	0
Bars, Staffordshire, at works					5	5	0
Sheets " "					6	12	6
Plates " "					6	7	6
Hoops " "					5	15	0
Ship plates, Middlesborough					5	1	3
STEEL: English spring					10	0	0
" cast					42	0	0
" Rails at works, according to section					6	0	0
Lead.							
Spanish or soft foreign					11	2	6
English pig, common					11	7	6
" L.B.					11	12	6
" sheet and bar lead					12	5	0
" pipe					12	15	0
" red					14	10	0
" white					17	10	0
" patent shot					15	0	0
Spelter.							
Silesian ordinary brands					15	10	0
" special brands					15	15	0
English Swansea					16	5	0
Sheet Zinc					18	10	0
Antimony.							
Antimony					30	0	0
Quicksilver.							
Flasks, 75 lbs. warrants	6	17	6		6	17	6
Manganese.				per unit.			
Ore, c.i.f., U.K. ports							
1st quality, 50 per cent. and upwards	0	0	11		0	1	1
2nd " 47 per cent. to 50 per cent.	0	0	10		0	1	0
3rd " 40 " 47 per cent.	0	0	9		0	0	11
Aluminium.							
98-99½ per cent. (guaranteed 98 per cent. min.) in ingos (1 cwt. lots)	Per lb.				Per lb.		
do do (1 ton lots)					0	1	4½
Nickel.							
98-99 per cent. guarantee	0	1	2		0	1	6

THE MELDOMETER.—A new instrument with this name has been invented by Dr. Joly for the purpose of indicating the fusing point of bodies, and has proved of great service in the hands of some eminent chemists, for determining the temperature at which small pieces of the salts of sodium, lithium, lead, &c., will fuse. The meldometer was recently brought before the Physical Society of London by Professor Ramsay and Mr. Eumerfapolos, and consists essentially of a thin strip of platinum, heated up by an electric current passing through it. The fragments to be tested are placed on the strip, and the current is increased until they melt. "Fusing point" is then found from the expansion of the platinum at the moment. While the "meldometer" is useful in the case of very small fragments of pure substances, it is not so when these substances are chemically altered by heating in the open air.

The transfer books of the WEST AUSTRALIAN MINING COMPANY (LIMITED) will be closed from April 7 to April 14, preparatory to the payment of the quarterly dividend, at the rate of 50 per cent. per annum.

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—*Ay*, Antimony; *A*, Arsenic; *Bl*, Blende; *Bz*, Borax; *C*, Copper; *D*, Diamond; *G*, Gold; *I*, Iron; *L*, Lead; *M*, Mundic; *N*, Nitrates; *P*, Phosphates; *Q*, Quicksilver; *R*, Ruby; *S*, Silver; *S-l*, Silver-lead; *Sul*, Sulphur; *T*, Tin; and *Z*, Zinc. * in the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles;] in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and †, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

*** The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

AFRICAN MINES.

Name.	Closing Price, Mar.27, 1896	Closing Price Mar. 20, 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£		£ s. d.			
Abbott's Con. Reefs	6 7	⅜ ½	1 0	—	1 0 0	—	De Kaap	Broad Street Avenue.
Aldier Consolidatd	1 1⅛	13/16 15/16	1 0	—	1 0 0	250,000	—	1, Moorgate place.
African Estates	2⅛ 2¼	2⅛ 2⅜	1 0	2/& rtsOc.16 95	1 0 0	438,603	,,	3, Copthall-buildings
,, Gold Rcvry.	1⅛ 1¼	1⅛ 1¼	1 0	rts Oct 30 '95	1 0 0	175,000	—	23, College Hill,
Africana	⅝ ¾	11/16 13/16	1 0	—	1 0 0	1,075,000	—	34, Clement's lane
Afrikander G	13/16 15/16	1⅛ 1⅜	1 0	rts May 24 '95	1 0 0	40,000	Transvaal.	23, College Hill
Alexandra Estate G	9/16 11/16	⅝ ⅞	1 0	—	1 0 0	225,000	Rand	16, George street
Anglo-French Exp.	4 7/16 4 9/16	4 11/16 4 13/16	5 0	15% Aug 29 '95	5 0 0	30,300	S. Africa	3, Princes street
,, Matabeleland	2½ 3	2½ 3	1 0	—	1 0 0	39,750	Matabld.	Winchester House.
Appantoo G	—	—	1 0	—	1 0 0	77,885	West Cost	Dashwood House.
Aurora G	1⅛ 1⅜	1¼ 1⅛	1 0	5% Mar.'93	1 0 0	65,000	Rand	8, Old Jewry.]
,, West United.	1¼ 1⅜	1¼ 1⅜	1 0	—	1 0 0	100,000	,,	7, Lothbury
Austral African	1 1⅛	1⅛ 1¼	1 0	3/-Dec. 26 '95	1 0 0	250,000	—	Token.Ho., CpthllAv
Balkis Eersteling G	2/9 3/3	3/ 3/6	10/	—	0 10 0	520,000	Transvaal	85, Gracechurch-st.
,, Land	6/- 6/6	6/6 7/	10/	1/ Feb. 13, '96	0 0 0	520,000	,,	,,
Bantjes Consol G	3⅝ 3¾	3 13/16 3 15/16	1 0	rts Sep 24 '95	1 0 0	83,000	,,	15, Geo. st., Mn Ho.
Barnato Bank	1⅛ 1⅜	1⅞ 2	1 0	—	1 0 0	2,025,000	—	7, Lothbury
,, Consol	2 13/16 2 15/16	3 1/16 3 3/16	1 0	—	1 0 0	1,000,000	—	,,
Barrett G	11/6 12/6	12/ 13/	10/	—	0 9 0	207,496	De Kaap	17, Basinghall-street
Bechuanaland Exp.	1¾ 1⅞	1⅞ 2	1 0	rts Jy 24 '95	1 0 0	400,000	Bechuana.	19, St. Swithin's-lane.
,, Trad g Assoc.	1⅛ 1⅜	1⅜ 1⅝	1 0	5 pc Jan 16, 96	1 0 0	100,000	,,	72, Basinghall street
Ben Trovato	9/16 11/16	9/16 11/16	—	—	— 0	—	—	2, Austin Friars.
Big Golden Quarry	1/ 1/6	1/ 1/6	5/-	—	0 5 0	483,226	Kaap Rivr	Warnford Court,
Block "B" Lang.	1⅝ 1¾	1 13/16 1 15/16	1 0	—	1 0 0	535,000	Rand	8, Princes-st., E.C.]
Bonanza	2½ 2⅝	2 11/16 2 13/16	1 0	—	1 0 0	2,0,000	Turffont'n	120, Bishopsgate-st.
Brit. S. A. Char.	4 5/16 4 5/16	4⅞ 5	1 0	rts Jy 26 '95	1 0 0	1,999,750	S. Africa	15, St. Swithin's-lane
Buffelsdoorn G	3⅝ 3⅞	3⅝ 3¾	1	16/- Nv. 28 '95	1 0 0	250,000	Potchefstr	7, Lothbury.
,, Central	½ ¾	½ ¾	1 0	—	1 0 0	—	—	8, Old Jewry
,, Consolidated	⅝ ¾	11/16 13/16	1 0	—	1 0 0	225,000	—	Warnford Court
Cape Asbestos	¾ 1	¾ 1	1 0	—	1 0 0	50,311	Orange Rv	19, St. Swithin's-lane
,, Copper C	2⅜ 2½	2⅜ 2½	2 0	2/6 Dec.16, '95	2 0 0	300,000	Cape Col.	9, Queen-street-place,
,, 6% Pref.	2⅜ 2⅝	2⅜ 2⅝	2 0	2/6 Dec.16, '95	2 0 0	45,000	,,	,, ,,
Cassel Coal	1 13/16 1 15/16	1⅝ 1⅞	1 0	7½pcMar27'96	1 0 0	75,000	Johanbrg.	99, Cannon-street.
Cen. de Kaap	1/3 1/9	1/3 1/9	5/-	—	0 2 6	—	De Kaap	Palmerston Bldgs
,, Roodp't Deep	2 3/16 2 5/16	2⅛ 2¼	1 0	—	1 0 0	220,000	—	120, Bishopsgate st.
Champ d'Or G	2 2⅛	2 2⅜	1 0	3/2 Feb. 27 '96	1 0 0	116,016	Rand	8, Old Jewry, E.C.
Charterland G.F	13/16 15/16	13/16 15/16	1 0	—	1 0 0	150,000	—	19, S. Swithin's lane
Chimes West	1⅛ 1½	1⅛ 1⅜	1 0	—	1 0 0	150,000	—	Winchester Ho.
City and Sub. Nw G	4⅛ 4½	4⅜ 4⅞	4 0	10/-June'95	4 0 0	340,000	Rand	Gresham Ho.
Con. Buitfontein D	32/6 33/6	32/6 33/6	1 0	9d, Jan. 16 '96	1 0 0	721,500	Griqualnd	62, Lombard-st
Con. Deep Levels G	5 5½	5⅝ 6	1 0	4/- Jy 11 '95	1 0 0	187,250	Transvaal	30, St. Swithin's-lane
Con. G. Fields S A.	12⅝ 12¾	13⅜ 13⅝	1 0	20/ Nov. 14 '95	1 0 0	1,250,000	S. Africa	8, Old Jewry.
Do. 6% Pref.	24/6 25/-	24/9 25/3	1 0	7 1-5d Dc30 95	1 0 0	1,243,959	,,	,,
Do. 5½% Deben.	109½ 110½	111 112	5 0	5⅛ Jan. 2 '96	5 0 0	500,000	,,	,,
Crown Deep G	10¼ 10¾	10¾ 11	1 0	—	1 0 0	250,000	Rand	120, Bishopsgate-st.
,, Reef G	10⅜ 10⅝	10⅜ 10⅝	1 0	10/-Jan. 16 '96	1 0 0	120,000	,,	,,
DeBeers Consol. D	26⅞ 27⅛	27¾ 28	5 0	15/- Jan. 16 '96	5 0 0	789,791	Kimberl'y	62, Lombard-street.
Do. 5% 1st Deb.	109 110	109¾ 110¼	—	5% Jan. 2 '96	—	£3,500000	,,	,,
Do. 5½% Bul. Ob.	105 107	105 107	—	5½% Oct. '95	—	720,000	,,	,,
Doornkop	4/6 5/6	6/3 6/9	1 0	—	1 0 0	250,000	Doornkop	Warnford Court
Driefontein	2⅜ 2⅜	2⅜ 2⅝	1 0	—	1 0 0	175,000	—	Winchester Ho,
Durban Roodept. G	6 6¼	6 6¼	1 0	3/- Dec. 16 '95	1 0 0	£125,000	Rand	23, Leadenhall-bldgs
,, Deep	3¾ 4	4 4¼	—	—	—	—	—	
Eastleigh G	13/16 15/16	1 1⅛	1 0	—	1 0 0	240,000	Klerksdrp	52, Leadenhall Street
East Orion	3/16 5/16	¼ ⅜	1 0	—	1 0 0	275,000	Rand	8, Old Jewry.
,, Rand G	6 3/16 6 5/16	6 11/16 6 13/16	1 0	—	1 0 0	570,000	,,	170, Winchester-ho.
Evelyn G	1 1⅛	1 1⅛	1 0	10% Jan. '89	1 0 0	66,000		28, Old Jewry, E.C.
Exploration	3⅜ 3⅝	3⅜ 3⅝ xd	1 0	5/- Mar. 12 '96	1 0 0	148,000	,,	30, S. Swithin's-ln.]
Exploring L & M	1⅜ 1⅝	1 7/16 1 9/16	1 0	2/ Dec. 16, '95	1 0 0	216,215	S. Africa	19, ,,
Ferreira G	18½ 19	19 19½ xd	1 0	13/ Mar. 12 '96	1 0 0	45,000	Rand	120, Bishopsgt st. Wn]
Forbes Reef (Nw) G	⅝ ¾	⅝ ¾	1 0	—	1 0 0	105,000	De Kaap	45-6, Leadenhall-st.
French Rand	2 2⅛	2⅛ 2⅜	1 0	—	1 0 0	480,000	Rand	28, Austin Friars,
Geldenhuis Deep G	6 6½	6¾ 7	1 0	—	1 0 0	265,000	Transvaal.	30, St. Swithin's-lane.
Geldenhuis Est. G	4 4¼	4⅛ 4⅜	1 0	6/- Jy 26 '95	1 0 0	187,500	Rand	120, Bishopsgt st. Wn]
,, Main Reef	1 1⅛	1⅛ 1¼	1 0	2/ Feb. 13 96	1 0 0	150,000	,,	Warnford Court, E.C
George Goch G	2⅛ 2½	2⅜ 2¾	1 0	—	1 0 0	100,000	,,	Johannesburg.
Ginsberg New G	1 7/16 1 9/16	1⅜ 1¼	1 0	—	1 0 0	130,000	Driefon.	Warnford Court, E.C.]
Glencairn G	3 9/16 3 11/16	3 11/16 3 13/16	1 0	2/6 Feb. 13 '96	1 0 0	200,000	Rand	2, Drapers-gardens.
Gld. Fis. Deep G	8⅛ 9	9⅞ 10⅛	1 0	—	1 0 0	600,000	S. Africa	8, Old Jewry.
G.F. of Lydenb'rg	2⅜ 3	2⅜ 3	1 0	—	—	—	Lydenb'rg	7, Lothbury.
G. F. of Mashonld.	5/16 7/16	⅜ ⅝	1 0	—	1 0 0	200,000	Mashonld.	19, St. Swithin's-ln.
Graskop G	5/- 5/6	5/6 6/-	5/-	½% Mar. '92.	0 5 0	400,000	Lydenburg	2, Tokenhouse Bldgs
Gt. Eastrn. Colliery	1 1¼	1⅜ 1⅝	1 0	—	1 0 0	376,666	Grootolei	8, Finch Lane
Griqualand W D	8¼ 8½	8¼ 8½	10 0	1/ Jan 16, '96	10 0 0	105,700	Transvaal.	62, Lombard-street
Heidelbg. Est. Ex.	⅝ 1⅛	1 1¼	1 0	—	—	—	Heidelbg.	
,, Gold	4/6 5/6	4/ 5/	1 0	—	1 0 0	500,000	,,	32, Gt. St. Helen's.
Henderson's Trans	2 5/16 2 7/16	2 9/16 2 11/16	1 0	—	1 0 0	250,000	Zoutpan.bg	85, Gracechurch st.
Henry Nourse G	5¾ 6	6⅛ 5⅜	1 0	—	1 0 0	100,000	De Kaap	Warnford-court.
Hetty	⅝ ¾	11/16 13/16	1 0	—	1 0 0	110,000	Middlevel.	55, Bishopsgate s. Wn
Joe's Reef G	3/16 5/16	3/16 5/16	1 0	—	1 0 0	57,404	,,	21, Mincing Lane.
Johannesbrg Invst	3¼ 3⅜ xd	3 11/16 3 13/16	1 0	20% Oct. '95	1 0 0	650,000	—	7, Lothbury.
,, Pioneer	10 10⅛	9⅝ 10	1 0	12½% Nov.,'93	1 0 0	21,000	Rand	Johannesburg.
Jubilee G	9 9⅛	9 9⅛	1 0	6/ Nov. 28 '95	1 0 0	30,000	,,	8, Old Jewry.]
Jumpers G	6¾ 6⅞ xd	6⅞ 7⅛	1 0	25% Aug 29 '95	1 0 0	100,000	,,	120, Bishopsgt st, Wn]
,, Deep	3¼ 3½	3¼ 3½	1 0	—	1 0 0	300,000	,,	30, S. Swithin's lane.
Kimberley D	¼ ½ pm	¼ ½pm	1 0	2/ Jan 16. '95	0 10 0	98,672	Kimberley	19, Finsbury circus.
,, Rdpt.	2⅜ 2⅝	2¼ 2½	1 0	—	1 0 0	125,000	,,	2, Drapers-gardens.
Klerksdorp	13/3 13/9	14/6 15/	10/-	—	0 9 0	400,000	Klerksdorp	110, Cannon St.
Knight's Deep	2⅜ 2⅝	2⅛ 2⅞	1 0	—	1 0 0	295,194	Rand	8, Old Jewry
Koffyfontein D	1 1⅛	1 1/16 1 3/16	1 0	—	1 0 0	125,000	Jacobsdaal	6, Gt. St. Helen's.
Lancaster	1 13/16 1 15/16	1⅞ 2	1 0	—	1 0 0	226,500	Luip. Vlei	120, Bishopsgt st. Wn
Langlaagte Est. G	5⅛ 5¼	5⅞ 6⅛	1 0	5/ Feb 13 '96	1 0 0	470,000	Rand	59, Holborn Viaduct
,, Royal	2⅛ 2⅜	2 7/16 2 9/16	1 0	rts. Mar. 6 '95	1 0 0	100,000		2, Drapers-gardens.
,, Star	1⅞ 2⅛	2⅛ 2⅜	1 0	—	1 0 0	170,000	,,	
Lisbon-Berlyn G	6/9 7/3	7/ 7/5	2/6	—	0 2 6	283,233	Lydenburg	Suffolk House.
Lon. Paris Fin & M.	11/16 13/16	13/16 15/16	1 0	—	1 0 0	500,000	—	53, Old Broad Street.
London & S. A. Ex.	13⅝ 14¼	14 14½	10/	4/- Mar. 12 '96	0 10 0	100,000	S. Africa	19, Finsbury-circus.
Luipaards Vlei Est.	⅞ 1	15/16 1 1/16	1 0	6% Mar. '90	1 0 0	319,003	Rand	Warnford-court.]
Lydenburg Estate.	1⅛ 1⅜	1⅛ 1¼	1 0	—	1 0 0	190,000	Lydenburg	85, Gracech. Street
,, Ld & Expl	¼ ⅜	¼ ⅜	1 0	—	1 0 0	200,000	,,	120, Bishopsgte St.
,, M'g. Est.	5 5¼	5⅜ 5⅝	1 0	—	1 0 0	300,000	,,	,,
Main Reef (New) G	1 1/16 1 3/16	1⅛ 1¼	1 0	—	1 0 0	111,500	Rand	15, George St., MnH
Malmani Gold Syn	3/6 4/6	3/6 4/6	2/6	—	0 2 6	200,000	Transvaal	Throgmorton House,
Marie Louise	2⅞ 3⅛	2⅞ 3⅛	1 0	—	1 0 0	60,000	Rand	15, George St., Mn H
Marievale Nigel	1 1⅜	1⅜ 1⅝	1 0	—	1 0 0	250,000	,,	,,
Mashon. Agency	2 5/16 2 7/16	2 13/16 2 15/16	1 0	—	1 0 0	100,000	Mashonald	8, Old Jewry, E.C.
,, Central	1 1⅛	1 1/16 1 3/16	1 0	—	1 0 0	180,000	,,	,,
Matabelel'd G. R'f	3¾ 4	4⅛ 4⅜	1 0	—	1 0 0	110,000	Matabelel'd	3, Copthall-buildings.
May Con. (New) G	2⅞ 3	3 3⅛	1 0	2/- Mar. 12 96	1 0 0	236,500	Rand	4, Lothbury.]
Meyer & Charl. G	5⅝ 5⅞	5½ 5¾	1 0	5/ Feb. 13 96	1 0 0	75,020	,,	1, Crosby Square.]
Minerva	1 7/16 1 9/16	1 7/16 1 9/16	1 0	—	1 0 0	150,000	,,	Winchester House.
Mines Selection	⅞ 1⅛	⅞ 1⅛	1 0	—	1 0 0	100,000	—	33, Br'd St. Avenue.
Modderfontein G	9⅝ 9⅞	10⅛ 10¾	1 0	—	1 0 0	200,000	Rand	13, George Street
,, "B" Extensn.	2 2¼	2⅛ 2⅜	—	—	—	—	—	28, Austin Frias
Molyneux Consoli.	1¼ 1⅜	1⅝ 1⅜	1 0	—	1 0 0	220,000	Modderftn	120, Bishopsgate st
Moodies G	⅝ ⅞	⅝ ⅞	1 0	-/4 May '90	1 0 0	240,000	,,	Gresham House.]
Mozambique	1⅜ 1⅝	1⅜ 1⅝	1 0	—	1 0 0	400,000	S E. Africa	13, Austin Friars.
Namaqua C	1¼ 1⅜	1¼ 1⅜	2 0	2/6 July '91	2 0 0	94,331	Namaqualid	14, Leadenhall-blds.
New African	4 4¼	4⅛ 4⅜	1 0	20/ Dec. 30 '95	1 0 0	190,000	—	83, Hatton Garden.
,, Chimes G	2 2⅛	2⅜ 2⅝	1 0	15 pc Aug. '95	1 0 0	100,000	Rand	8, Old Jewry, E.C
,, Clewer Estate	2⅛ 2⅜	2⅛ 2⅜	1 0	10% Feb.28 '96	1 0 0	100,000	Lydenburg	120, Bishopsgt st. Wn]
,, Comet	2⅜ ¾	2⅞ 3⅛	1 0	—	1 0 0	175,000	Heidelburg	Winchester-house.
,, Crœsus G	1 9/16 1 11/16	1 11/16 1 13/16	1 0	rts Apr 17 '95	1 0 0	255,000	Langlaagte	120, Bishopsgt.st. Wn
,, Gordon D	6/ 7/	7/ 8/	1 0	5% Dec. '89	1 0 0	404,344	Griqualand	110, Cannon-street.
,, Heriot G	8¾ 9	8⅞ 9⅛	1 0	5/ Feb. 13, '96	1 0 0	88,750	Rand	96, Gresham Ho EC
,, Jagersf. D	9⅞ 10⅛	10 10⅛	5 0	10/ Oct. 16 '95	5 0 0	100,000	Transvaal.	5, Copthall-buildings
,, Kleinfontein G	3⅛ 3⅜	3⅜ 4⅛	1 0	12½ pc Mar. '95	1 0 0	82,500	Rand	Winchester House
,, Midas	2⅜ 4⅛	4⅛ 4⅜	1 0	rts. Jan. 16, '96	1 0 0	150,000	Mid'le Vlei	120, Bishopsgt-st. W
,, Primrose G	5 13/16 5 15/16	5 15/16 6 1/16	1 0	5/ Feb. 13, '96	1 0 0	272,750	Rand	2, Draper's-gardens.
,, Rietfontein G	3⅝ 4	4⅜ 4⅝	1 0	—	1 0 0	160,000	,,	Warnford-ct., E.C.
,, S. Augustine D	9/3 9/9	11/3 11/9	1 0	—	0 19 6	299,137	Griqu'ld W	30-1, St. Swithin's-ln
,, Spes Bona G	1¼ 1⅜	⅝ 1⅜	1 0	—	1 0 0	113,701	Rand	24, N. John-st., L'pl.
,, Steyn Estate	1 5/16 1 7/16	1⅜ 1⅝	1 0	—	1 0 0	125,000	Heidelberg	19, Bury Street, E.C.

AFRICAN MINES—(*Continued*).

Name.	Closing Price, Mar.27, 1896.	Closing Price, Mar. 20 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£					
Nigel G	3¾ 4	4⅜ 4⅝	1 0	rts Aug 10 '95	1 0 0	160,000	Rand	96, Gresham Ho., EC
,, Deep G	1¼ 1⅞	2 1/16 2 3/16	1 0	—	1 0 0	195,000	Heidelberg	8 Old Jewry.
North Randfontein	1 13/16 1 15/16	1⅞ 2⅛	1 0	—	1 0 0	235,000	—	3, Princes street
Nourse Deep	4⅛ 4¼	4⅝ 5	1 0	—	1 0 0	375,000	Rand	120, Bishopgt.-st., Wn
Oceana	1¼ 1⅞	1⅞ 2	1 0	2/-Nov. 28 '95	1 0 0	357,400	Wtrbg Lyn	13, Austin Friars.
,, Develpmnt	⅝ ¾	9/16 11/16	1 0	—	1 0 0	50,000	Heidelbrg.	,,
,, Minerals	13/16 15/16	15/16 1 1/16	1 0	—	1 0 0	500,000	,,	,,
Orange F.S.E. D	3⅛ 4	3¾ 4¼	1 0	10% Aug., 95	1 0 0	284,000	OrangeF.S.	10, Moorgate-street,
Orion (New) G	2 7/16 2 9/16	2 11/16 2 13/16	1 0	10% Aug. '95	1 0 0	30,000	Rand	8, Old Jewry.
Paarl Central G	1 1/16 1⅛	1⅜ 1½	1 0	—	1 0 0	138,750	Transvaal.	120, Bishopsgt st. W.
Pardy's Mozambq.	1¼ 1½	1¼ 1⅜ xd	10/	rts Mar 12 '96	0 10 0	13,000	S.E. Africa	Broad St. Avenue.
Piggs Peak G	⅜ ½	7/16 9/16	1 0	—	0 17 0	200,000	Swazielnd.	6, Queen-street-place
Porges Randfontn.	1⅞ 2⅛	2⅛ 2¼	1 0	2/ Feb. 13 '96	1 0 0	437,500	Rand	1, Bank Buildings
Potchefstroom G	11/16 13/16	⅝ ¾	1 0	—	1 0 0	389,750	Potchefstm	19, Bury-st., E.C.
Princess Estate G	3 3⅛	3 3/16 3 5/16	1 0	—	1 0 0	125,000	Rand	33, Cornhill, E.C.
Rand Central Ore	2 7/16 2 9/16	2 7/16 2 9/16	1 0	25 p c Aug. 95	1 0 0	115,000	—	8, Princes-street, E.C.
Randfontein G	2 13/16 2 15/16	3 1/16 3 3/16	1 0	—	1 0 0	2,000,000	Rand	1, Bank Buildings
Rand Mines G	28 28⅛	29¾ 30¼	1 0	—	1 0 0	332,708	,	120, Bishopsgt st. Wn]
Rand-Rhodesia Ex	1 1/16 1 3/16	1 3/16 1 5/16	1 0	10 p.c. Oct. '95	1 0 0	25,000	R&Rhodesa	123, ,,
Rhodesia Ex & Dv.	7⅛ 8	7½ 8⅛	1 0	—	1 0 0	50,000	Mt & Mash'l	8, Old Jewry.
Robinson (SA) Bank	6⅜ 7¼	7 7⅛	4 0	—	4 0 0	750,000	—	8, Prince's-street
,, Deep	6⅝ 7⅛	5⅛ 7½	1 0	—	1 0 0	500,000	M'nR'tR'nd	120, Bishopsgate st.
,, Diamond	1⅜ 1⅞	1⅞ 2	1 0	—	1 0 0	350,000	Kaal Valley	8, Prince's street
,, Gold	9¼ 9½	9⅜ 9⅞	5 0	8/ Feb 13 '96	5 0 0	550,000	M. Rf.'rand	28, Austin Friars, E.C
,, Randftn.	1⅜ 1⅝	1 7/16 1 9/16	1 0	—	1 0 0	517,000	Rand	8, Prince's-street.
Roodepoort Deep	2⅞ 3	3¼ 3⅜	1 0	—	1 0 0	170,000	,,	8, Old Jewry, E.C.
Roodepoort Un. G	4⅞ 5⅛	5⅛ 5⅜	1 0	5/ Feb 13 '96	1 0 0	130,000	,,	Warnford-court.]
Rose Deep	4¾ 5¼	5 5⅛	1 0	—	1 0 0	300,000	M. Rf.'rand	30-31, S. Swith'n lane
Rothery Block	8/ 10/	8/ 10/	1 0	—	—	—	—	55, Bishopsgate st.
St. Angelo	4⅛ 4⅜	4¼ 5	1 0	—	1 0 0	175,000	—	Winchester House.
St. Helen's Devel.	2⅜ 2¼	2⅜ 2⅞	1 0	—	1 0 0	47,950	S. Africa	13, S. Helen's Place
Salisbury New	4⅛ 4⅜	4⅛ 4⅜	1 0	—	1 0 0	99,000	Rand	96, Gresham Ho., E.]
Sheba G	2 2⅛	2 1/16 2 3/16	1 0	1/- Sep 26 '94	1 0 0	850,000	Lydenburg	18, S. Helen's place.
Simmer & Jack G	5 6	5 6	1 0	2/ Aug 14 95	1 0 0	250,000	Rand	8, Old Jewry.
S.A Gold Trust New	7⅞ 8⅛	8⅛ 8¾	1 0	15/ Feb 27 '96	1 0 0	250,000	S. Africa	,,
South West Rand	⅜ ½	⅜ ½	1 0	—	1 0 0	158,000	Rand	Winchester House.
Spitzkop (New) G	15/6 16/6	14/6 15/6	1 0	—	1 0 0	99,070	Lydenburg	15, Bishopsgt-st. W.
Stanhope G	1 1/16 1 3/16	1 1/16 1 3/16	1 0	2/- Oct 20 '95	1 0 0	34,000	Rand	96, Gresham Ho., E]
Sutherland R. G	5/ 6/	6/ 7/	1 0	—	1 0 0	220,000	Zoutpan'bg	Dashwood Ho.
Tati Concessions	1⅞ 2	2 2⅛	1 0	rts Jy. 22 '95	1 0 0	392,000	—	Gresham House.
Trans. Coal Trust	1¼ 1⅞	1¼ 1⅞	1 0	1/- Apr. '96	1 0 0	439,965	Rand	Broad St. House, E.C
,, Consolidatd	2 2¼	2⅛ 2⅜	1 0	—	1 0 0	485,131	Transvaal	120, Bishopsgte st. Wn
,, Est. & Dev.	1 1⅛	1⅛ 1¼	1 0	—	1 0 0	428,600	,,	10, New Broad-st. E.C.
,, Gen. Assoc.	2⅜ 2⅝	2¼ 3 xd	1 0	10/-Mar. 12 '96	1 0 0	185,000	—	30, S. Swithin's lane
,, Gold Exp. G	5¼ 5½	5⅞ 6⅛	1 0	3/6 Jan. 16 '96	1 0 0	260,000	Transvaal.	Suffolk House, E.C.
,, Gold Fields	3⅞ 4⅛	3⅞ 4⅛	1 0	—	1 0 0	135,000	S. A. R.	120, Bishopsgt-st. Wn
,, Land	7/16 9/16	⅜ ⅝	1 0	—	1 0 0	79,915	Transvaal	33, Cornhill.
Treasury G	3⅜ 3⅞	3⅜ 3⅝	1 0	12½% Sep.'91	1 0 0	135,000	Rand	Warnford Court.
United Exploratn.	1 1⅛	1⅝ 1⅞	1 0	—	1 0 0	250,000	—	123, Bishopsgte St.
Un. Ivy Reef G	⅞ 1	⅞ 1	1 0	2½ Jan. '94	1 0 0	45,000	Transvaal	110, Cannon-street.
U. Langlaagte (N) G	1⅜ 1⅝	1⅛ 1¼	1 0	—	1 0 0	146,000	Rand	85, Gresham Ho. E.C.
,, Pioneer	¾ 1	¾ 1	1 0	—	1 0 0	75,000	De Kaap	16, S. Helen's-pl. E.C.
,, Rhodsa. G F	⅞ 1	15/16 1 1/16	1 0	—	0 10 0	225,500	Rhodesia	13, George street E.C.]
Van Ryn G	5⅛ 5¾	5⅞ 6⅛	1 0	4/- Jan. 16 '95	1 0 0	160,000	Rand	18, St. Swithin's-ln.
,, North	¾ 1	¾ 1	1 0	—	1 0 0	116,091	—	,,
,, West	3⅜ 3⅝	3¼ 3¾	1 0	—	1 0 0	120,000	Rand	
Venterskroon	1⅜ 1⅝	1⅜ 1⅝	—	—	1 0 0	125,000	Rooderand	8, Old Jewry
Vesta	1⅛ 1¼	1⅛ 1⅜	1 0	—	1 0 0	130,000	Rand	Winchester House
Village Main Reef	6⅜ 6⅝	7 7¼	1 0	—	1 0 0	177,000	,,	8, Old Jewry.
Vogelstruis Estate	3⅛ 3¼	3⅜ 3⅞	1 0	—	1 0 0	200,000	,,	Winchester House.
,, Cons. Deep	2⅜ 2⅝	2⅜ 2⅝	1 0	—	1 0 0	327,750		16, Geo. St. Mn. Ho
Wassau G	⅝ ⅞	¾ ⅞	1 0	—	1 0 0	100,000	Gold Coast	147, Cannon-street
Wemmer G	9⅞ 10	9⅞ 10⅛	1 0	£1 Feb 13 '96	1 0 0	55,000	Rand	19, Bury-street.]
Western Nigel	⅞ 1	⅞ 1	1 0	—	1 0 0	207,000	Main Reef	Suffolk House,
West Rand G	1½ 1⅝	1 9/16 1 11/16	1 0	—	1 0 0	240,000	Rand	13, Geo. St., Mans.Ho
Willoughby's Con.	1 13/16 1 15/16	2 1/16 2 3/16	1 0	—	1 0 0	700,000	Mashonald	3, Copthall-bldgs.
Witwatersrand G	6⅜ 6⅞	6⅞ 7⅛	1 0	—	1 0 0	250,000	Rand	19, Bury-st., E.C.
Wolhuter G	7⅜ 7¾	8⅜ 8⅞	1 0	rts Apr 26 '94	1 0 0	130,000	,,	Warnford-court.]
Worcester G	4⅛ 4⅜	4 4¼ xd	1 0	2/-Mar 12 '96	1 0 0	90,727	Rand	8, Old Jewry.]
Zambesia Explora.	2⅛ 2¾	2 13/16 2 15/16	1 0	—	1 0 0	65,000	Transvaal.	30-31, Clement's lane

BRITISH MINES.

Name.	Closing Price, Mar.27, 1896.	Closing Price, Mar. 20 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Basset	1¼ 1⅜	1 1⅛	£		£ s. d.			
Blue Hills CT	1/ 2/	1/ 2/	*	2/- May,'81	5 19 5	5,353	Cornwall	Camborne.
Carn Brea T	¼ ½	14/ 15/	*	2/6 Dec.,'93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen T	—	—	*	—	35 15 10	4,900	,,	Camborne.
Devon Gawton CA	15/ 20/	⅞ 1	1 0	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
,, Gt Cons. CA	20/ 21/	20/ 2 /	5 0	1/6 May '95	2 0 0	10,240	Devon	,,
Dolcoath T	15/ 16/	15/ 16/	1 0	—	1 0 0	188,000	Cornwall	Camborne.
,,	4/ 5/	3/6 4/6	1 0	—	0 5 0	25,000	,,	,,
Drakewalls CTM	/9 1/	/6 /3	5/	—	0 2 0	61,856	,,	Dashwood House.
East Halkyn	—	20/ 25/	1 0	—	0 2 6	12,000	Flintshire	67, Lord St., Liverpl.
,, Pool AT	2⅛ 3	2¼ 2¾	*	1/6 Sept, '94	0 9 9	6,400	Cornwall	Illogan.
Great Laxey L	1⅛ 1¼	1⅜ 2¼	4 0	5/- Apr., '92	4 0 0	15,000	I. of Man	Douglas, Isle of Man.
Green Hurth L	1/6	1/6	1 0	-/6 June '89	0 19 0	4,000	Omberlnd	Newcastle.
Halkyn L	—	9 10	1 0	8/- Mar. '96	1 0 0	10,000	Flintshire	Chester.
Do. Dis. Mn. Drain	—	10 11	10 0	5% Aug. '95	10 0 0	10,000	,,	Corn Ex. Cmb. Chester.
Isle of Man L	5⅞ 6⅛	5⅞ 6⅛	5 0	7½% Mar.'96	5 0 0	11,000	I. of Man	Chester.
Killifreth T	6/ 7/	6/ 7/	*	1/6 Nov.,'94	5 15 6	6,000	Cornwall	Truro.
Leadhills L	1 1⅛	1 1⅛	6 0	1/- Oct. 18 '95	6 0 0	20,000	Lanarksh.	30, Finsbury-circus.
Llanarmon	par	par	1 0	—	1 0 0	21,990	Denbigh	8, Werburgh Chambers Chester.
,,	par	par	1 0	—	0 15 0	3,790	Flintshire	
Levant CT	4 4⅛	4 5	*	4/- Nov., '94	11 9 6	2,500	Cornwall	Penzance.
Nenthd&Tudie LZ	1/6	1/6	1 0	6% Feb., '91	0 18 0	48,815	Nthumbld.	Newcastle-on-Tyne.
Polberro T	⅛ ¼	10/ 12/	*		2 1 6	18,000	S. Agnes, Cl.	37, Walbrook.
Rhosemor L	par	par	1 0	10 p c Sept. 9'	1 0 0	1,000	Flintshire	Corn Ex. Cmb. Chester.
So. Condurrow TC	⅛ ¼	1/6 2/6	*	3/6 Apr. '93	7 17 6	6,123	Cornwall	20, Great St. Helens
,, Crofty TA	1/ 2/	1/ 2/	*	—	17 10 6	5,769		Pool, Cornwall.
S. Frances Untd. T	—	9/ 10/	*	—	2 7 6	6,000	,,	Redruth.
,, Halkyn	par	par	1 0	—	1 0 0	10,000	Flintshire	8, Werburgh Chambers
Talacre	par	par	1 0	—	0 15 0	20,000	,,	61, Forgate st., Chester
Tincroft T	¾ 1¼	1⅜ 1⅝	*	2/- Aug. '94	15 7 6	6,000	Cornwall	Carn Brea.
Weardale L	8/9	8/9	4 0	1/3 Oct. '90	1 10 0	50,000	Durham	3, Lombard-court.
West Frances T	—	—	—	2/6 May,'89	17 1 7	6,144	Cornwall	Camborne.
,, Kitty T	2 2⅛	2 2¼	*	2/- Dec. '94	1 2 0	6,000	,,	37, Walbrook.
Wheal Agar TA	3/ 2/	⅝ ¾	*	2/6 Aug. '88	23 15 2	6,000	,,	Redruth.
,, Friendly T	1/ 1/6	1/ 1/6	*	—	0 12 9	10,000	,,	2, Copthall Bldgs. E.C
,, Grenville T	6 7	6 7	*	3/- Nov 28 '95	18 2 0	6,000	,,	7, Union-court, E.C.
,, Kitty T	⅛ ¼	⅛ ¼	*	3/- Mar. '88	4 5 6	8,590	,,	Truro.
,, Metal & F. T	3/ 3/6	3/ 4/	*	—	0 3 0	60,000	,,	14, Broad-street Av.

EUROPEAN MINES.

Name.	Closing Price, Mar.27, 1896.	Closing Price, Mar. 20 1896.	Am't. of Share	When last XD and Dividend.	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
			£					
Alamillos L	1 1⅛	1 1¼	2 0	1/9 Apr 14 '96	2 0 0	35,000	Spain	6, Queen-street-place
Consett Ore	6¼ 6⅝	6¼ 6⅝	1 0	5/- July 94	1 0 0	65,280	Spain	19, Grey-st., N'castle
Fortuna L	1⅛ 1⅜	1⅛ 1⅜	2 0	1/- Apr 14 '96	2 0 0	25,000	Spain	,,
Libiola C	3 3¼	3 3¼	5 0	2/- Sept. 27 95	5 0 0	50,400	Italy	Dashwood Ho., EC
Linares L	5 5⅛	5 5⅛	3 0	9/- Apr 14 96	3 0 0	14,998	Spain	6, Queen-street-place
Mason & Barry C	2⅞ 3⅛	2⅞ 3⅛	5 0	2/ May 23 '94	5 0 0	186,172	Portugal	37, Cannon-street
Pestarena G	6/ 7/	6/ 7/	3 0	—	3 0 0	67,809	Italy	6-7, Queen-street-pl.
Pontgibaud SL	—	—	20 0	11/6 Dec. '94	20 0 0	14,000	Coueron	30, St. Swithin's-ln
Rio Tinto C	18⅝ 18⅞	18⅝ 18⅞	10 0	10/- Oct. 30 '95	10 0 0	325,000	Spain	,,
,, (1st Mrt. Bds)	102 103	102 103	100 0	4% Jan. 2, '96	100 0 0	£3600,000	,,	
Ripanji AQ	—	—	1 0	—	0 19 0	95,000	Servia	120, Bishopsgt st. Wn
Tharsis C Sul	5¼ 5⅜	5 5¼	2 0	1/- Apr 26 '9[illegible]	2 0 0	625,000	Spain	Glasgow.
West Prus Pre. pref	—	—	10 0	5% Dec. 95	10 0 0	365	Germany	Walbrook H., EC
,, Prussian Pre.	—	—	10 0	6% Dec. '95	10 0 0	5,480	,,	,,
,, Prussian Or.	—	—	10 0	4% Dec. 95	10 0 0	14,050	,,	
Wohlfahrt L	—	—	1 0	3% Dec. '94	1 0 0	89,634	Prussia	17, Victoria st.
,,	—	—	1 0	2% Dec. '94	0 19 9	9,090	,,	

"THE MINING JOURNAL" SHARE LIST—(Continued)

AUSTRALIAN AND NEW ZEALAND MINES.

Name.	Closing Price, Mar. 27, 1896.	Closing Price, Mar. 20, 1896.	Am't. of Share	When last XD and Dividend.	Called up per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Abbotts 2/6pm.pd. G	⅛ ⅜	7/16 9/16	£1 0	—	£1 15 0	67,000	Murch. WA	139, Cannon-street
Achilles Gld Fld.	2/9 3/3	3/ 3/6	2/6	—	0 2 6	642,456	Otago, N.Z	11, Poultry.
Aladdins Lamp G	1 5/16 1 7/16	1⅜ 1½	1 0	1/ Feb. 13 '96	1 0 0	100,000	B'knN S.W	4-6, Throg. Avenue.
Anglo-French Exp	¾ 1 pm	1⅛ 1⅜ pm	1 0	5/- Oct 30 '95	0 10 0	40,000	W. Austral	79, Queen Street.
Anglo-Ger. Explor.	1 1¼ pm	1 1¼ pm	1 0	5/ Oct. 20 '95	0 10 0	50,000	,,	,,
Arrow Brownhill G	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	90,007	Cool., W.A.	4, Gt. Winchester St.
Assoc. Gold Mines	2¼ 2⅜	2⅛ 2¼	1 0	—	1 0 0	375,000	,,	20, Bucklersbury
Australasian ......G	3/9 4/3	4/ 5/	1 0	-/6 Mar., '92	1 0 0	10,000	Gymp. Q'ld	6, Queen-st. place
Australian C	—	—	20 0	-/9 Aug. '95	7 7 6	218,315	S. Austral.	42, New Broad-street
Aus. Bro. Hill Con.	1/3 1/9	1/3 1/9	1 0	1/- June, '91	1 0 0	22,708	BarR. NSW	Winchester House.
Baker's Creek ...G	⅛ ¾	⅛ ¾	1 0	1/- May '95	0 17 6	500,000	H'gveNSW	Hillgrove, N.S.Wale.
Bardoc..........G	⅝ ¾	¾ 1	1 0	—	1 0 0	165,000	W. Austral	43, Threadneedle st.
Bayley's Reward G	4/6 5/6	5/ 6/	1 0	-/4 Dec. 94	1 0 0	480,000	Coolgardie	F'sb'y. H. Bl'mf'ld St.
Big Blow ....G	11/16 13/16	⅝ ¾	1 0	—	1 0 0	150,000	,,	151, Cannon Street.
Brackett's Claim G	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	55,000	,,	16, St. Helen's Place.
Black Flag Consld.	1¼ 1½	1⅜ 1½	1 0	—	—	—	W. Austral	4, Bishopsgate St. Wn
,, Propty.	⅝ ¾	11/16 13/16	1 0	—	1 0 0	140,000	Coolgardie	1, Metal Exch. Bldgs
Blagroves Freehold	4/ 4/6	4/3 4/9	2/6	—	0 2 6	500,000	Corom. N Z	Dashwood House.
Bonnie Dundee G	5/ 6/	5/ 6/	1 0	—	0 18 6	120,000	C. T. Q'land	16, S. Helen's Place
Brilliant.........G	13/16 15/16	13/16 15/16	2 0	-/6 Feb 18, '96	2 0 0	250,000	,,	Charters Towers.
,, Block...G	1 7/16 1 9/16	1⅜ 1½	1 0	-/6 Dec 16 '95	1 0 0	70,000	,,	16, S. Helen's Place
,, St.Geo.G	1 13/16 1 15/16	1 13/16 1 15/16x	10/	/9 Mar. 26 '96	0 10 0	72,000	,,	Charters Towers.
Brit. Brok. Hill S	15/6 16/6	16/ 17/	1 0	—	1 0 0	240,000	N.S. Wales	Dashwood Ho., E.C.
Broad Arrow	2/ 2/6	2/9 3/3	5/	—	0 4 6	100,000	W.Feather	57, Moorgate Street.
Broken Hill Prop. S	2 5/16 2 7/16 xd	2½ 2⅝	8/	1/- Feb 27 '96	0 8 0	960,000	N. S. Wales	3, Gt. Winchester st.
Brownhill Propty.	¾ 1	13/16 15/16	1 0	—	1 0 0	125,000		4, Gt. Winchester st
Burbank's Birthd'y	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	150,000	Coolgardie	Copthall House.
Caledonian ......G	2/ 3/	2/6 3/6	1 0	—	—	120,000	W. Austral	Portland House.
Cassidy Hill ......G	1¼ 1⅜	1¼ 1⅜	1 0	—	1 0 0	115,000	Coolgardie	35, New Broad Street
Central Boulder G	⅝ ¾	9/16 11/16	1 0	—	1 0 0	93,522	K'lg'rl, WA	Wor'st'r Ho., Walbr'k
,, Exp. & Invst.	⅛ dis par	⅛ dis parxd	1 0	4·8d Mar 12 '96	—	—	W. Austral	1, Met. Exchg. Bldgs
,, ,, of W.A.	1⅛ 1¼ xd	1⅛ 1¼	1 0	—	1 0 0	122,000	W. Austral	2, ,,
Charters Tow. ...G	1/ 1/6	1/ 1/6	10/	—	0 9 6	200,000	Queenslnd	110, Cannon Street
,, Consolid....	/6 1/	/6 1/	10/	—	0 9 6	300,000	,,	110, ,,
Colonial Finance...	3¾ 4⅛pmxd	4⅛ 4⅜pm	1 0	100% Mar. '96	0 10 0	21,140	W. Austral	139 ,,
,, Gold Fields	⅛ ¼pm	⅛ ⅜ pm	1 0	—	0 12 6	75,250	,,	70, Cornhill.
Con. G. M. of W. A.	⅛ 9/16	⅛ ⅜	1 0	—	1 0 0	246,779	Pilbarra ...	30, Moorgate Street.
,, Murchison ...	9/16 11/16	⅝ ¾	1 0	—	1 0 0	225,533	Murc., W A	Broad Street House.
Contl. & W.A. Trust	⅞ 1⅛	⅝ ⅞	1 0	—	1 0 0	104,467	W. Austral	Broad Street House.
Coolgardie Gold ...	13/16 15/16	13/16 15/16	10/	1/ Feb. 16 '96	0 5 0	90,000	Cool. W.A.	Broad Street Avenue.
,, Mining G	1/ 2/	1/6 2/6	2/	—	0 1 0	400,000	Coolgardie	Winchester House.
,, Mint & I.Kg.	¾ ⅞	⅜ ⅝	1 0	—	1 0 0	150,000	,,	30, S. Swithin's ln.
Craven' Cal. ... G	1/ 2/	1/ 2/6	4/	-/3 June 94	0 4 8	100,000	Queenslnd	30-1, S. Swithin's-le.
Croesus So. United	13/16 15/16	13/16 15/16	1 0	—	1 0 0	115,000	Hann'sWA	Blomfield House
Crown United......	1 1⅛	1/16 9/16 pm	1 0	—	1 0 0	75,000	—	110, Cannon-st., E.C.
Cumbrlnd (New) G	/9 1/3	1/ 1/6	1 0	2/6 Dec. '87	0 19 0	184,090	Queenslnd	Blomfield House. E C
DayDawn B.&W. G	12/ 13/	11/6 12/6 xd	1 0	-/6 Mar 12 '96	1 0 0	498,400	,,	16, S. Helen's Place
,, P. C. G	3/6 4/	3/3 3/9	1 0	-/6 Apr. '92	1 0 0	490,000	,,	Winchester Ho.. E C
Eaglehawk.........G	1/6 2/6	1/6 2/6	1 0	—	0 18 0	120,000	Victoria ...	71-72, King Wm. St.
Eagle's Nest	par ¼ pm	par ¼ pm	1 0	—	1 0 0	72,500	Mt. Margrt	Finsbury House.
Emerald Reward...	1/16 ⅛	1/16 ⅛	1 0	—	1 0 0	38,139	Murc. WA	Gresham House.
Emperor ....G	⅛ ¾	⅛ ¾	1 0	—	1 0 0	65,000	,,	Finsbury House, E.C
Empress Coolge. G	1/16 ⅛	⅛ ⅜	1 0	—	0 10 0	90,000	Coolgardie	2, Tokenhouse bldgs
Explorers Synd.	par ¼ pm	⅜ 7/16 pm	1 0	—	0 5 0	9,000	W.Austral	Copthall House
Fingall R'fs. Extd	⅛ ⅜	7/16 9/16	1 0	1/4 Jan. 16 '96	1 0 0	150,000	,,	4, Sun Court
Florence..........G	1⅜ 1¾	1⅜ 1⅞	1 0	—	1 0 0	50,000	,,	18, St. Swithin's ln
Gibraltar Cons......	⅞ 1	15/16 1 1/16	1 0	—	1 0 0	300,000	N S Wales.	6, Queen-street-place
Gladiator ....G	⅜ ¾	⅜ ¾	1 0	—	1 0 0	—	W. Austral	43, Threadneedle st
Glenrock ....G	1/3 1/9	1/3 1/9	1 0	—	0 8 0	225,000	N. Zealand	3-5, Queen-st. E.C.
Golconda ....G	7/16 9/16	⅛ ⅜	1 0	—	1 0 0	68,086	Murchison	Winchester House
Golden Cement G	1 1⅛	⅝ ⅞pm	1 0	—	0 10 0	—	W. Austral	79, Queen Street, E.C.
,, Crown....G	1¾ 1⅞	1 5/16 1 7/16	1 0	—	1 0 0	100,000	,,	77, Bishopsgate-st.
,, Gate.....G	/6 1/6	/6 1/6	10/	—	0 10 0	150,000	Queenslnd	34-36, Gresham-st.
,, Horse Shoe...	¾ 1	¾ 1	1 0	—	1 0 0	—	W. Austral	13. Helen's Place
,, Link ......G	⅝ ¾	9/16 11/16	1 0	5/- Oct 30' 95	1 0 0	90,000	,,	Dashwood House
,, Plum......G	1¼ 1⅜	1 5/16 1 7/16	1 0	—	1 0 0	120,000	,,	4, Bishopsgate Street
Gold Estates.........	2¼ 2½	2¼ 2⅜	1 0	3/ Dec 30 '95	1 0 0	60,000	,,	42, Gresham House.
Great Boulder ...G	7¼ 7½ xd	6¼ 6⅜	1 0	2/- Dec 16 '95	1 0 0	240,000	Yilgarn ...	3, Gracechurch st.
,, ,, Junction	1½ 1⅜	1⅛ 1⅜	1 0	—	—	—	,,	Worc. Ho., Walbrook
,, ,, M'n R'fs	1¼ 1⅜	15/16 1 1/16	10/	—	0 10 0	240,000	—	3, Princes Street.
,, Fingall Rfs.	⅝ ⅜	15/16 1 1/16	1 0	5% Jan. 16, 96	1 0 0	175,000	Kurnalpi	Broad Street House
Gresham Synd. ..	1 1¼pm	1 1/16 1 3/16pm	1 0	4/- Oct 30 '95	1 0 0	50,000	W. Austral	13-14, Abchurch ln.
Hainault	1½ 1¾	1⅛ 1¾	—	—	—	—	—	82, Gordon st., Glas.
HamptonGoldFlds	⅜ ⅝	⅜ ⅛ dis	1 0	—	0 10 0	—	—	9, S. Mildred's Ct.
,, GoldHill	1/ 1/6	1/3 1/9	1 0	—	—	—	—	93-94, Gracechurch st
,, Plains...	4 3/16 4 5/16	3 15/16 4 1/16	1 0	—	1 0 0	300,000	Cool. W.A.	29, S. Swithin's lane
,, PlainsEx	8/6 9/6	7/6 8/6	1 0	—	0 18 0	160,000	,,	Suffolk House, E.C.
Hannan's BrwnHil	6⅞ 7⅜	6 7/16 6 9/16	1 0	—	1 0 0	65,000	,,	Broad Street House.
,, Main Reef...	7/16 9/16	7/16 9/16	10/	—	0 10 0	—	Kalg. W.A.	18, St. Swithin's ln.
,, North..........	1 1¼	1⅛ 1¼	1 0	—	1 0 0	51,107	,,	33, Cornhill.
,, 100 Acre.......	⅜ 1	⅜ 1	1 0	—	—	—	,,	Dashwood House.
,, Oroya..........	1⅜ 1½	1 1/16 1 3/16	1 0	—	1 0 0	—	,,	20, Bucklersbury
,, Prop..........	1⅜ 1½	1⅜ 1½	1 0	—	0 10 0	—	—	139, Cannon Street.
,, Reward... G	3¾ 4	3 7/16 3 9/16	1 0	—	1 0 0	70,000	Hann. WA	Bartholomew Ho,
,, Star..........	1⅛ 1¼	1 1⅛	1 0	—	1 0 0	—	E.Coolgde.	Finsbury House E.C
Hauraki.........G	16/ 16/6 xd	17/ 17/6	2/6	1/ Mar. 27 '96	0 2 6	250,000	Coromndl.	Dashwood Ho.; E.C
Hawk's View ...	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	40,000	W. Austral	71-72, King Wm. St.
Hit or Miss......	1 7/16 1 9/16	1 7/16 1 9/16	1 0	—	1 0 0	120,000	Cool., W.A.	1, Queen Vic. St.
Idaho ....GS	5/3 5/9	5/3 5/9	10/	-/6 Jan. 16 '96	0 5 0	143,439	W. Austral	Copthall House.
Kaboonga ....G	1/6 2/	1/9 2/3	10/	—	0 9 9	249,250	Queenslnd	70-71, Bishopsgate st
Kalgurli.............	1¼ 1½	1⅜ 1⅝	1 0	—	1 0 0	34,000	W. Austral	20, Threadneedle-st
Kapanga............G	10/6 11/	10/3 10/9	1 0	rts May 24 '95	0 19 6	249,760	N. Zealand	9, New Broad-street.
Kinsella ....G	7/6 8/6	8/6 9/6	1 0	—	1 0 0	80,000	Murchison	33, Broad-st. Avenue
Kintore ....G	⅝ ¾ pm	11/16 13/16pm	1 0	—	1 0 0	50,000	W. Austral	13, Abchurch lane.
Komata Reefs	5/ 5/6	5/ 5/6	5/-	—	0 5 0	—	Ha'raki, NZ	Dashwood House.
Kurnalpi..........G	¼ ⅜	¼ ⅜	1 0	—	—	—	Coolgardie	Throgmorton House
Lady Loch..........	3 7/16 3 9/16	2¾ 3	1 0	—	1 0 0	70,000	,,	34-36, Gresham-st.
,, Mary Amalg.	1 5/16 1 7/16	1⅜ 1⅝	1 0	—	1 0 0	46,000	Murchison	Finsbury House.
,, Shenton	2¼ 2⅜	2 3/16 2 5/16	1 0	—	1 0 0	—	—	18, St. Swithin's ln
LakeView& E.Bldr	3⅜ 4	2⅞ 3	10/	-/6 Jan. 2 '95	0 7 6	—	—	90, Cannon Street.
Limerick	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	52,537	Coolgardie	Leadenhall Buildgs.
Lindsay	⅜ ⅛	⅜ ⅛	1 0	—	1 0 0	65,000	,,	Copthall House
Ln. & Con. Invest.	⅛ ¼ pm	⅛ ¼ pm	1 0	—	1 0 0	500,000	W. Austral	79, Queen Street.
Lon. & Globe Fin.	2 9/16 2 11/16	2 7/16 2 9/16	1 0	2/ Jan. 16 '96	0 15 0	—	,,	15, Austin Friars.
Londonderry......G	8/6 9/6	7/ 8/	1 0	—	1 0 0	467,000	,,	3, Gracechurch-st.
L. & W. Aust. Expl.	1 15/16 2 1/16	1⅞ 2	1 0	4/-Nov 29 '94	1 0 0	270,100	,,	Broad Street Ho.
Lon. W. A. Invest.	2⅜ 2⅝	2¼ 2⅜	1 0	4/ Oct 16 '95	1 0 0	100,000		,,
Mainland Cons. G	2¾ 2⅞	2 11/16 2 13/16	1 0	—	1 0 0	150,000	Murchison	14 Old Broad Street
Mallina Gold	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	89,000	W. Austral	49, W. Geo. St., Glas
Masson's Rewrd. G	⅛ ⅜	⅛ ⅜	1 0	—	1 0 0	60,000	,,	28 & 29, S. Swithin's ln
Menzies Gold Est.	15/16 1 1/16	¾ ⅞	1 0	—	1 0 0	—	,,	Broad Street House
,, Gold Reef	1⅝ 1⅞	1 11/16 1 13/16	1 0	—	1 0 0	175,000	,,	22a, Old Broad Stree
,, (O'Driscoll)	1¼ 1⅜	1 5/16 1 7/16	1 0	—	1 0 0	—	,,	16, Tokenhouse Yard
Mills' Day Dawn G	6⅞ 1	⅞ 1	1 0	-/6 Aug 29 '95	0 15 6	300,000	Queenslnd	16, S. Helen's Place
Mosman..........G	4/3 4/9	4/3 4/9	1 0	—	0 19 0	185,000	N.S Wales	Bishopsgate House
Mount Lyell.........	5⅞ 6⅛	6 6¼	3 0	—	3 0 0	300,000	Tasmania	Finsbury House
Mount Margaret...	2 2⅛	2 1/16 2 3/16	1 0	—	1 0 0	—	W. Austral	28, St. Swithin's ln.
,, Morgan G	3 3/16 3 5/16	3 3⅛ xd	1 0	-/6 Mar 12, '96	0 17 6	1,000,000	Queenslnd	9, Gracechurch-st.
,, Rowe	1 1⅛	13/16 15/16	1 0	—	1 0 0	75,000	Coolgardie	44, Coleman Street
MurchisonN.Ch'm	9/ 10/	5/16 7/16	1 0	1/- Oct 30 '95	1 0 0	160,000	,,	23, College Hill.
N'eHauraki Props	6/ 6/6	6/ 6/6	5/	—	0 5 0	200,000	Ha raki, NZ	Dashwood House.
,, Queen ......G	6/6 7/6	5/6 6/6	1 0	-/6 Sep 12 '95	0 19 6	158,915	Queensind	71-72, King Wm. St.
Norseman	1⅝ 1¾	1⅝ 1¾	1 0	—	1 0 0	200,000	Dundas ...	30, S. Swithin's lane
North Boulder......	6/ 6/6	5/3 5/9	10/-	—	0 10 0	—	W. Austral	18, Helen's Place
,, Coolgardie ..	1/ 1/6	1/ 1/6	5/	—	0 4 0	400,000	Pilbarra ...	226, Winchester Ho.
,, Kalgurli	¾ 1	¾ 1	1 0	—	1 0 0	—	—	11, Abchurch lane
,, Q'ld. & Agency	1⅛ 1¼	1 3/16 1 5/16	1 0	30% Aug. '95	1 0 0	90,000	Queenslnd	10 New Broad Street
Omnium G M Assoc	¾ 1	¾ 1	—	—	—	80,000	—	Broad-streeet House
Paddington Cons.	1¼ 1⅜	1 3/16 1 5/16	—	—	—	—	—	77, Bishopsgate-st.
Pilbarra G. F.	1⅛ 1¼	1⅛ 1¼	1 0	—	1 0 0	100,000	Pilb, W. A.	38, Coleman-street.
Ramage Syndicate	4¾ 4⅞	4¾ 4⅞	1 0	£2& rts F.13 96	1 0 0	50,000	W. Austral	4, Bishopsgate-st.
Royal Oak.........	2/9 3/3	3/ 3/6	5/	—	0 3 0	200,000	N. Zealand	Dashwood House.
,, Sovereign ...	1¼ 1⅜	1⅛ 1⅜	1 0	—	1 0 0	60,000	Coolgardie	8, Old Jewry, E.C.
Sherlaws	11/ 12/	11/6 12/6	1 0	—	1 0 0	82,000	,,	Broad Street Avenue
ScottishAustralian	⅜ ⅝	⅜ ⅝	1 0	/3 Aug., '95	1 10 0	200,00	N. S. Wales	Winchester Ho. E.C.
Scotty's Hauraki...	3/6 4/	3/ 3/6	5/-	—	0 2 0	400,000	N. Zealand	5, Drapers gardens
South Kalgurli ...	⅝ ⅞	⅝ ⅞	1 0	—	1 0 0	60,000	W. Austral	20, Great Win. St.
Stray Shot & Excl	1 1⅛	¾ 1	1 0	—	1 10 0	—	Pilb., W A	30, S. Swithin's lane.
Tararu...........	4/ 5/	4/ 5/	10/	—	0 5 0	90,000	N. Zealand	Dashwood House,
Tokatea of Hauraki	2/ 2/6	2/3 2/9	5/	—	0 3 0	—	,,	63, New Broad St.
Town Prop. of W A	1⅛ 1¼	1 1⅛	1 0	—	0 15 0	250,000	W. Austral	28-9, S. Swithin's-ln
True Blue	1⅛ 1⅜	1¼ 1⅜	1 0	—	1 0 0	—	—	Dashwood House.
Victoria Associatn	—	—	1 0	-/3 Feb, '96	1 0 0	144,000	Chr. Tow.	6, Crosby-square
Victory............ G	3/16 5/16	1/3 1/9	5/	-/3 May, '94	0 5 0	40,000	Queenslnd	34, Gresham-st., E.
Waihi.............. G	6 6¼	6⅛ 6⅜xd	5/	2/- Mar 12, '96	1 0 0	130,000	N. Zealand	11, Abchurch-ln. E.C
,, Silverton	3 13/16 3 15/16	3 13/16 3 15/16	1 0	—	1 0 0	60,000	,,	23, College Hill
Waitekauri	4⅜ 4⅝	4⅜ 4⅝	1 0	—	1 0 0	136,000	,,	,,
,, Extended ...	7/16 ⅜	7/16 ⅜	10/	—	0 10 0	130,000	,,	63, New Broad St.
Waratah..........G	8/6 9/6	8/6 9/6	10/	—	0 10 0	100,000	Crydn, N Z	43, Threadneedle st
Water Trust Min.	⅜ ⅝	⅜ ⅝	1 0	—	1 0 0	120,000	W. Austral	Broad Street House
W. of Nations......	1⅜ 1½	1¼ 1⅜	1 0	—	0 15 0	—		77, Bishopsgate-st.
Wentworth .... G	1⅜ 1⅝	1⅛ 1¼	1 0	2/- Dec 16 '95	1 0 0	500,000	N. S Wales	4-6, Throgmort. Av.
W. A. Develop's.	1 1/16 1 3/16	1⅛ 1¼	1 0	—	1 0 0	50,000	—	49-53, Moorgate court
W. Aust. G. Conces	1⅝ 1⅞	1 13/16 1 15/16	1 0	2/ Sept 27 '96	1 0 0	£55,000	W. Austral	33, Old Broad st., EC
W. A. Ex. & Fin.	3 3⅛	2⅞ 3	1 0	5/- Jan 16 '96	1 0 0	200,000	,,	54, ,,

AUSTRALIAN AND NEW ZEALAND MINES—(*Continued*).

Name	Closing Price, Mar. 27, 1896	Closing Price, Mar. 20, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
W. A. General......	3⅜ 3⅝	4⅛ 4⅜	1 0	—	0 14 0	—	W. Austral	28, St. Swithin's-ln.
,, Australian G.F.	7 7⅛	6¾ 7xr	1 0	rts Mar 12 '96	1 0 0	65,000	Coolgardie	28-29, ,,
,, ,, Mines Dvl	1¾ 2¼pm	1¾ 2¼ pm	1 0	10/ Oct 30, 95	1 0 0	40,000	W. Austral	3, Princes Street
,, Aust. Mining	9/3 9/9xd	9/3 9/9	5/	50 p c April '96	0 5 0	320,000	,,	257, Winchester Ho.
,, Aust. Pioneer.	1⅜ 1⅞	1⅝ 1⅞pm	1 0	rts Oct 19 95	0 15 0	19,993	,,	139, Cannon-street.
,, ,, Share Corp.	⅛ ⅜pm	⅛ ⅜ pm	1 0	—	0 5 0	200,000	,,	28, St. Swithin's ln
,, ,, Venture......	2⅝ 2⅞pm	2¾ 3⅛ pm	1 0	15/ Oct. 30 '95	1 0 0	—	,,	3, Princes Street.
West Boulder	13/16 15/16	11/16 13/16	—	—	—	—	—	
Westralia	1 1⅛	15/16 1 1/16	1 0	—	1 0 0	—	—	Winchester House.
White Feather ...	2 5/16 2 7/16	2 5/16 2 7/16	1 0	—	1 0 0	60,000	Coolgardie	28 & 29, S. Swithin's ln
Zapopan............G	5/ 6/	5/ 5/6	1 0	—	1 0 0	25,000	NWAustra	70, Bishopsgate-street
Zeehan Montana S	—	—	1 0	-/4 Dec. 95	1 0 0	66,000	Tasmania	11, Queen Victoria st
,, ,, ...	—	—	1 0	2½ Dec. 95	0 2 6	12,000	,,	,,

NORTH AMERICAN MINES.

Name	Closing Price, Mar. 27, 1896	Closing Price, Mar. 20, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Alaska Mexican...G	1⅛ 1¾	1⅛ 1¾	$5	4 4-5d. Feb., 96	$5	160,000	Alaska......	30, St. Swithin's-ln
,, Treadwell G	5⅛ 5¾	5⅛ 5¾	$25	1/6 Dec 24, '95	$25	200,000		
Anglo Mexican ...S	⅜ ⅝	⅜ ⅝	5 0	2/- Dec. 30 95	5 0 0	74,850	,,	23, College Hill.
Arizona (Pref.) Cu	46/ 46/6	46/9 47/3	4 0	1/6 Feb. 13 '96	4 0 0	158,920	Arizona ...	74, Geo.-st., Edinbor
,, 6½ A Deben.	108	108	100 0	½% Oct. 30 '95	100 0 0	£135,300	,,	,,
,, 7% B Deben.	96 96½	96½	100 0	7% Oct. 30 '95	100 0 0	£181,300	,,	
De Lamar.........GS	16/ 17/	16/ 17/	1 0	1/- Feb. 13 '96	1 0 0	400,000	Idaho......	6, Drapers-gardens.
Dickens Custer GS	-/9 1/3	-/9 1/3	1 0	—	0 19 9	420,000	,,	Winchester Ho. E.C.
Doric..................G	7/9 8/3	7/3 7/9	5/	—	0 5 0	125,000	Colorado...	
Elkhorn Priority S	⅛dis ⅛ pm.	par ¼ pm	1 0	-/3 June 26 '95	0 10 0	175,007	Montana	6, Draper's-gardens.
Gen. M'g. Assoc. ...	6¾ 7¼	6¾ 7¼	5 10	14/- Apr. 95	5 10 0	27,469	C. Breton	Blomfield House.
Golden Feather G	12/6 13/6	13/ 14/	1 0	—	1 0 0	180,000	California	8, Stephens Cs E.C.
,, Gate ......G	2/6 3/6	2/6 3/6	1 0	—	0 19 6	79,600	,,	,,
,, Leaf...... G	1/- 1/6	1/ 1/6	1 0	—	1 0 0	300,259	Montana	8, Draper's Gardens.
Harquahala... .. G	3/6 4/6	4/6 5/6	1 0	-/6Nov.14,'94	1 0 0	300,000	Arizona ..	6, Draper's Gardens.
Holcomb Valley G	1/- 1/6	1/ 1/6	5/	—	0 5 0	540,000	California	14, Cornhill. E.C.
Jackson Goldfields	/9 1/3	/9 1/3	5 0	—	0 5 0	408,635	,,	11, Poultry, E.C.
Jay Hawk (New) G	-/6 1/	/6 1/	1 0	-/6 Dec. '92	0 19 3	285,000	Montana	Dashwood House.
La Plata............S	1/ 1/3	1/ 1/3	5/	1/3 Oct. '82	0 4 8	405,000	Colorado	11, Poultry, E.C.
La Yesca ....GS	2/9 3/3	3/6 4/6	1 0	—	0 19 6	200,000	Mexico ...	20, Bucklersbury, EC
Lyonnaise Mexican	⅞ 1¼	1 1¼	1 0	—	1 0 0	140,000	,,	3, Broad St. Bldgs.
Montana .... GS	8/6 9/6	8/6 9/6	1 0	-/3 Mar 27 '96	0 19 0	657,158	Montana	Gresham House, E.C.
New Guston ......S	⅛ ⅜	⅛ ⅜	1 0	1/- Oct. '92	1 0 0	110,000	Colorado	25a, Old Broad-st.
Palmarejo ......GS	1/9 2/3	1/6 2/	1 0	—	1 0 0	418,888	Mexico ...	32, Old Jewry, E.C.
PinosAltos(Df)GS	⅛ 3/16	⅛ 3/16	1 0	-/6 Mar.' 90	1 0 0	100,000	,,	110, Cannon-street.
Richmond ...GSL	⅝ ⅞	⅝ ⅞	5 0	1/- Dec. 16 '95	5 0 0	54,000	Nevada ...	44, Coleman-street.
St. George	1/ 2/	1/ 2/	5/	—	0 4 9	—	G o'giaUSA	S. Geo Ho., E'cheap
Sierra Buttes ...G	7/16 9/16	7/16 9/16	2 0	-/6 Oct. 30 '95	2 0 0	122,500	California	138, Leadenhall-st.
,, Plumas Eur. G	11/16 13/16	11/16 13/16	2 0	-/9 Oct. 30 '95	2 0 0	140,265	,,	,,
Springdale.........G	/10½ 1/1½	/9 1/3	$1	-/2 Sep. 28, 9	$1	1,000,000	Colorado	20, Abchurch Lane.
Twin Lake Placers	1 1¼	1 1⅛	0	3/- Feb. '95	1 0 0	26,000	,,	5, Lawrence P. Hl. E

SOUTH AND CENTRAL AMERICAN MINES.

Name	Closing Price, Mar. 27, 1896	Closing Price, Mar. 20, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Anglo-Chilian Pf N	9⅛ 10	9⅛ 10	10 0	7/0 Feb. 27 '96	10 0 0	35,000	Antofagst.	123, Bishops.-st. W
,, 6% RylstMB	108 110	108 110	100 0	6% Jan. 2 '96	100 0 0	£200,000	,,	
Argen. Concessions	1/9 2/3	1/9 2/3	2/	—	0 2 0	150,000	S. Luis ...	3 & 5, Queen Street.
Caratal............ G	/6 1/	-/6 1/	2/6	—	0 2 6	1,330,000	Venezuela	57, Moorgate-st. E.C
Caylloma..........S	—	—	2 0	1/- Apr. 94	2 0 0	125,000	Peru	52, Leadenhall street
Colon ....G	-/3 /9	-/3 /9	5/	—	0 4 0	200,000	Colombia	5, Copthall-bdgs., E.C
Colorado Nit. ...N	1¾ 2¼	1¾ 2¼	5 0	2/6Dec.16,'95	5 0 0	32,000	Chili	12, King-st., Liverp'l
Colombia...... .....G	—	—	20 0	10 frs. Aug. 94	20 0 0	—	Venezuela	Ciudad Bolivar.
Colombian Hy...G	7/16 9/16	7/16 9/16	1 0	1/- Jy 26, '95	1 0 0	75,000	Colombia	10, Blomfield-street
Copiapo C	2⅛ 2⅜	2⅛ 2⅜	2 0	2/6 Dec. 16 '95	2 0 0	100,000	Chili	Dashwood House, E.C
Darien "A" ......G	5⅛ 5⅝	6⅛ 6⅝	1 0	—	1 0 0	49,553	Colombia	Manchester.
,, "B"	7 7⅛	9⅝ 9⅞	1 0	x.nwDec 30'95	1 0 0	30,000	,,	,,
Don Pedro.........G	1/ 2/	1/ 2/	1 0	—	1 0 0	133,102	Brazil	24-5, Devonsh. CsE.C
El Callao ....G	⅛ ⅜	⅛ ⅜	5 0	9¼d. Feb. '94	5 0 0	257,600	Venezuela	8, Bishopsgt.-st, Wn
Frontino & B....G	1 1/16 1 3/16	1 1/16 1 3/16	1 0	6d. Jan. 16 '96	1 0 0	128,662	Colombia	184, Gresham House
Glenrock ....G	1/3 1/9	1/3 1/9	1 0	—	1 0 0	199,948	Arg. (& I.)	3-5, Queen-street, E.C
Gravel.............G	2/6 3/6	2/6 3/6	1 0	—	1 0 0	100,000	Colombia	10, Blomfield-street
Guadalupe ......GS	3/6 5/-	3/6 5/	1 0	—	1 0 0	120,000	Honduras	1a, Union ct. Old Brd
Julia Taltal ......N	⅛ ¼	3/16 5/16	1 0	—	1 0 0	105,234	Nicaragua	139, Cannon-street.
Lagunas ....N	3⅜ 3⅝	3⅜ 3⅝	5 0	15p.c.Dec.'94	5 0 0	120,000	Tarapaca	3, Gracechurch st.
Lautaro ....N	6⅝ 7	6⅝ 7	5 0	5/- Dec. 30 '95	5 0 0	110,000	Chili	70, ,,
Liverpool ....N	8⅛ 9⅛	8⅛ 9⅛	5 0	15/-Dec 16, 95	5 0 0	22,000	,,	Liverpool.
Loma ....G	-/6 1/-	/6 1/	1 0	—	1 0 0	300,000	Colombia	5, Copthall-building.
London Nit.........N	1¾ 2¼	1¾ 2¼	3 0	3/4¾ Nov. '89	5 0 0	10,000	Chili	9, Gracechurch-st.
,, Nit.(Pref.)	3⅛ 4⅛	3⅛ 4⅛	5 0	8% Nov. 28 '95	5 0 0	22,000	,,	,,
Macate	1/ 1/6	1/9 2/3	2/	—	0 2 0	200,000	Peru	11, Old Broad-st, E.C
New Tamarugal N	3/16 5/16	3/16 5/16	1 10	1s. Dec. '94	1 10 0	130,000	Tarapaca	50, Lime-street, E.C
,, 8% Cum Pref	7/16 9/16	7/16 9/16	1 10	8 p.c. Feb. '95	1 10 0	130,000	,,	,,
,, 6 p.c. Debs ...	83 89	88 89	100 0	6 p.c. Feb. '96	100 0 0	£260,000	,,	,,
Orita..................G	1/9 2/3	1/3 1/9	1 0	1/- April '89	1 0 0	30,000	Colombia	10, Blomfield-street
Ouro Preto ... . G	—	—	1 0	1/- Feb. '96	1 0 0	80,000	Brazil	6, Queen-street-place
Pac. & Jazpampa N	1¾ 2	1⅞ 2⅛	5 0	4/- May, '95	5 0 0	72,000	Tarapaca	3, Gracechurch-st.
Phœnix	-/9 1/-	/9 1/-	10/-	—	0 8 0	400,000	S. Luis ...	3 & 5, Queen Street.
Quebrada C	⅛ ¼	⅛ ¼	3 0	5% Mar, '92	3 0 0	241,956	Venezuela	38, Nicholas Lane.
Rosario ....N	5 5⅛	5 5⅛	5 0	5/- Feb. 13 '96	5 0 0	120,000	Chili	57½, Old Broad-stree
,, (5% Deb.)	104 107	104 107	100 0	5% Oct. 1 '95	100 0 0	£475,000	,,	,,
,, Hu'r'Db Scrp	103 108	103 106	100 0	5% Jan. 2 '96	100 0 0	£200,000	,,	,,
St. John del Rey G	⅞ 1	⅞ 1	1 0	x.rtsNov 19 '95	1 0 0	327,650	Brazil	Finsby.Ho., Blmf'd st
San Donato .....N	1¼ 1¾	1¼ 1¾	5 0	2/6 May 24 '95	5 0 0	32,000	Chili	12, King-st., Liverp
,, Jorge ....N	5⅛ 6	5⅛ 6	0	5/ Oct. 16 '95	5 0 0	75,000	,,	9, Gracechurch-st.
,, Pablo ....N	2¼ 2¾	2¼ 2¾	0	5/- Oct. 30 '95	5 0 0	32,000	,,	
,, Sebastian ...N	1½ 1¾	1½ 1¾	5 0	5/ May 24 '95	5 0 0	29,000	,,	DashwoodHoouseEC
Santa Barbara ...G	—	—	10/	1/3 Dec. '86	0 10 0	60,000	Brazil......	Liverpool
,, Elena ......N	⅛ ¾	⅛ ¾	5 0	5/- Nov. 15 '94	5 0 0	22,000	Tarapaca	3, Gracechurch-st.
,, Rita ......N	3⅜ 4¼	3⅜ 4¼	5 0	10/May 24 '95	5 0 0	20,000	Chili ...	DashwoodHouse, E.C
Segovia ....G	—	—	5/-	—	0 5 0	120,000	Colombia	5, Copthall-building.
Tolima "A" ......S	7 7⅛	7 7⅛xd	5 0	5/-Mar. 12 '96	5 0 0	14,000	,,	18, Finsbury-circus.
,, "B" ......S	5⅛ 6⅛	5⅛ 6⅛xd	5 0	5/- Mar 12 '96	5 0 0	6,000	,,	,,

INDIAN AND ASIATIC MINES.

Name	Closing Price, Mar. 27, 1896	Closing Price, Mar. 20, 1896	Am't. of Share	When last XD and Dividend	Called up Per Share.	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office
Balaghat Mysore G	3/- 3/6	3/- 3/6	1 0	—	0 19 0	159,945	India	6-7, Queen-street-p
Burma Ruby.......R	⅜ ⅞	¾ ⅞	1 0	—	0 18 0	298,551	Burmah...	Suffolk House E C.
ChampionReef...G	6 11/16 6 13/16	6⅞ 7	1 0	5/- Jan. 16 '96	1 0 0	220,000	India	6-7, Queen-street-pl.
Coiar Central ...G	1/- 1/6	1/ 1/6	1 0	—	1 0 0	200,000	,,	Dashwood Ho., E.C.
Coromandel...... G	1 1/16 1 3/16	1⅛ 1¼	1 0	—	0 17 6	95,000	,,	6-7, Queen-st.-place
GoldFldsMysore G	20/6 21/6	21/6 22/6	1 0	2/- Feb '96	1 0 0	275,000	,,	6-7, Queen-street pl.
Kadur Mysore......	4/ 5/	4 5	5/	—	0 5 0	400,000	,,	Copthall House, E.C
Kempinkote GdFd	/6 1/	/6 1/	5/	—	0 3 6	750,000	India	6-7, Queen-st.-place.
Mysore .... G	5⅜ 5⅝	5⅜ 5⅛xd	1 0	4/6 Mar. 12 '96	1 0 0	248,354	,,	6-7, Queen-street pl.
My. Harnhalli ...G	-/9 1/3	1/ 1/6	1 0	—	0 12 0	100,007	,,	2, East India Avenue
,, Reefs ...G	7/6 8/6	8/ 9/-	1 0	—	1 0 0	160,000	,,	6-7, Queen-street-pl.
,, West(N)G	1⅛ 1¼	1 3/16 1 5/16	1 0	rts. Jan. 16 '95	0 19 0	127,408	,,	2, Gt. Winchester St.
,, Wynaad G	1 1/16 1 3/16	1 1/16 1 3/16	1 0	rts. Jan. 16 '96	0 19 0	125,000	,,	,,
Nine Reefs ......G	2/6 3/	2/9 3/3	10/	—	0 10 0	250,000	,,	6-7, Queen-street-pl.
Nundydroog......G	2 9/16 2 11/16	2¼ 2⅜ xd	1 0	2/- Mar 12 '96	1 0 0	200,000	,,	,,
Ooregum (Df.O.) G	2 15/16 3 1/16	3⅛ 3¼xd	1 0	3/- Dec. 16 '95	1 0 0	145,000	,,	,,
,, (10% Pref.).	3 13/16 3 15/16	3 15/16 4 1/16	1 0	3/- Dec. 16 '95	1 0 0	107,011	,,	,,
,, (10% Pref.).	3⅛ 3⅜	3 3⅛	1 0	3/- Dec. 16 '95	0 5 0	12,989	,,	,,
Panang Kabang T	1/16 3/16	1/16 3/16	1 0	—	1 0 0	200,000	Malay Pn.	4a, Jeffrey's st. E.C
Yerrakonda ......G	/9 1/3	/6 1/6	4/	—	1 2 6	187,491	Mysore ...	6-7, Queen-stree, pl

MINE REPORTS—Continued.

ALMADA AND TIRITO.—Report for the month ending February 29: Drivages. The lode in Ibarra's tunnel driving south yields a little green ore, and looks promising. 35·5 feet were driven by four men, the total length being 369·5 feet. The 150 feet level driving south of Taylor's shaft was extended 23 feet by four men, total length 146·5 feet. The lode is massive and intermixed with a considerable amount of white quartz, but contains no ore at present. The 150 feet level driving north of Taylor's shaft was extended 21·6 feet by four men, total length 106·3 feet. The lode has improved during the past week, and is now yielding 1½ ton of green ore per fathom, containing 34 ounces silver per ton. In the 150 drivage south of this shaft on the Europas lode old workings were cut into, and it has been suspended. The lode in the 150 feet level driving south of Wilde's shaft is wide, and of an encouraging character, but without ore. 27·1 feet were driven by four men, total length 129·4 feet. The 150 feet driving north of Wilde's shaft was extended 28·1 feet by four men, total length 141·9 feet. The lode is of a hard nature, composed chiefly of quartzite and is at present unproductive. —Shafts. Taylor's shaft was sunk 9·8 feet; total depth below the 150 level 19·8 feet. The sides of the shaft, where the lode was intersected, required timbering, consequently our progress is slow. We shall resume sinking immediately. Owing to a considerable increase of water in the 150 drivage north of Wilde's shaft, very little has been done towards sinking.—Stopes. These have improved, and are fairly productive at present.—(Signed) John Nute.

CLUTHA (Barberton, Transvaal).—The manager, writing under date February 26, reports as follows:—C winze. The rock here is similar to last week. Heavy visible gold in places. —200 feet level south. Have not yet been able to get Kaffirs to start this—are doing our best to bring some here.

CARIBOO.—In the annual report of the Minister of Mines for province of British Columbia for the year ending Dec. 31 last, the following appears in the report of the Gold Commissioner for the Cariboo District: Hydraulic mining. This process of mining is now assuming vast proportions in the district. Not as carried on in the early days, with the use of canvas hose with small pipe and monitor, with perhaps a 2 inch nozzle, and 100 feet of pressure, but upon a more extensive scale, similar to the works elsewhere described as being in operation at the Cariboo and Horsefly Mines.—The hydraulic elevator. This process of recovering the gold scattered through gravel so situated that dumpage or grade for the sluices cannot be obtained, renders it possible to dispose of the débris, by raising it to a sufficient height to create a grade for the sluices. This system has been in use in New Zealand, Australia, and California for some years, but is quite new to British Columbia. The introduction of the plant, and the extensive preparations now being made by Mr. A. D. Whittier for the Cariboo Gold Fields, on Williams Creek, and perhaps on a less extensive scale by Mr. E. T. Ward, for the Horsefly Gold Mining Company, of Horsefly, is attracting much attention, and whose success will doubtless have a salutary effect upon the mining industry. The thoroughness with which the preliminary work on the Gold Fields property is being carried out reflects great credit upon the management. The magnitude and novelty of this enterprise, being such as to warrant more than a passing remark, I append the report of the agent and manager, Mr. A. D. Whittier, which includes that of his engineer, Mr. James Champion:—"Barkerville, B.C., December 3: John Bowron, Esq., Gold Commissioner, Richfield, B.C.: Dear Sir,—In answer to your request for a statement of the amount and nature of the work done during the present mining season on the properties owned by the Cariboo Gold Fields (Limited) on and about Williams' Creek, I do not think I can do better than to submit for your perusal the report of Mr. J. Champion, M.E., and dated 27th ult. This report will give the work in detail. When all the works are completed next spring we will have 14 miles of ditches, and a grand total of 15,097 feet of steel hydraulic pipe lines in operation. The total weight of this pipe will be in the vicinity of 400 tons. There will also be 2600 feet of tunnel, 2200 feet of flume, and 1140 feet of trestle for carrying pipe line over Williams' Creek. One point of great interest to mining men in connection with this mine is that the main pipe line that connects with the hydraulic gravel elevator will be worked under great pressure than has ever been attempted in hydraulic mining in any country, and the gravel will be lifted from the bedrock of Williams' Creek to a height of over 100 feet and deposited on the surface. This is the greatest elevation gravel has ever been lifted by hydraulic pressure. The pipe for this work is made of lap-weld steel, and is 12,200 feet in length. Starting at the elevator the pipe is 18 inches in diameter, and 9-32 of an inch thick. The different sizes are as follows:—6830 feet of 18 inches, 1860 feet of 20 inches, 990 feet of 22 inches, 2400 feet of 24 inches, with a mouthpiece of 36 inches. This pipe is secured at the joints with Kimberley collars, and tamped with 13 tons of lead. This pipe line is at Ashcroft ready for shipment. Outside of hydraulic mining I shall erect this winter two hoisting engines at the mouth of Williams' Creek to work the bottom gravels that are below the drainage line, and will work this ground continuously. I expect to have all the development work completed, and the mine in full operation not later than August 1."

CHAFFERS.—Fortnightly report from Messrs. Bowes, Scott, and Co., resident engineers: During the last two weeks all works in progress on the mine have been pushed ahead as vigorously as possible. —No. 1 shaft. The crosscut east from this shaft has been extended a further distance of 12 feet Ground much softer.—No. 4 shaft. The crosscut west has been extended 11 feet 6 inches, total 29 feet. The country is soft.

COLON.—The mine superintendent writes under date February 17:—I have now received a copy of the resolution obtained in Bogota on the Gledhill arbitration, a copy of which I now enclose. "The case was returned to Hague, and I have heard from our lawyer in that town that all the papers with the resolution have been forwarded to Guayabal."

KING SOLOMON'S GOLD MINES (Coolgardie).—Summary of report from engineer at mine, dated Feb. 19:—No. 376 south-east drive 49 feet; expect to cut reef in another 20 or 30 feet; adjoining lease shaft down 50 feet; drive 110 feet cuts large quartz reef, showing good gold freely; the line of this reef lies right across 376. No. 82 shaft down 98 feet, about 10 feet from water level, going through quartz, &c., formation, carrying gold all the way.

KATHLEEN.—The following report has just come to hand in London:—Since my last, dated January 22 ult., Hartridge's shaft have been deepened to a depth of 60 feet, the outer shaft 14 feet 4 inches by 10 feet 4 inches, all timbered by 9 inches by 3 inches. At that depth we have fixed a set of bearers in the rock, and by the 24th inst. (Monday), I hope to have the inner shaft timbered up 11 feet by 7 feet within timber by 8 by 8, and 9 by 2 casing, complete to the surface, the outer part being puddled with tough clay to dam back the surface water. If we are successful in keeping back the surface water, we shall at once start to sink the shaft below the point reached 60 feet. The bottom of the shaft has just reached the bed rock. We purpose sinking to the 150 feet level before opening out, and if the contractors complete the erection of the temporary pumping and winding appliances in good order and time, I have great hopes of reaching that level at an early date. It is possible that we shall cut through reefs in sinking to the 150 feet; if not, very short crosscuts will soon enable us to open them up. In the meantime the contractors are getting on with the erection of their machinery, while we shall be proving the mine at a depth of 150. I am hurrying on all I can the work to be prepared for all emergencies before winter sets in, and I see no reason why we should not have the mine in an advanced state of development at the 150, and be prepared to go on sinking below as soon as our machinery is erected. The poppet heads are in a forward state, and in 10 days I hope to have it erected, and a permanent brace fixed for tips, &c. The contractors have built a large workshop for engineers, and for erecting machinery, which the company will later on convert into a changing house for our miners. The pitwork, pumps, and plungers are being cast. The winding and pumping engines have all been ordered, and we have sufficient timber alongside of the shaft to complete it to the 150 feet. The mines have already assumed a lively appearance. They are adjacent to the Hauraki, and speaking from a mining point of view, I think there is a great probability of a rival in your property to it.—(Signed) Francis Hodge.

RICHMOND CONSOLIDATED.—Coolgardie property. The manager, under date of February 19, reports as follows:—The underlie shaft is now down a distance of 100 feet. A connection has been made with the vertical shaft for ventilation. The reef is broken, and of very uneven width, and I expect will be so until depth is attained. All the stone carries gold, very fine, and will be of an average value of 1½ ounces of precious metal per ton throughout the full width of the reef. I am of opinion that it is the continuation of the reef struck in Regina north. It appears to be no unusual thing for the reefs to alter their course a very many degrees in a short vertical distance. This I take to be owing to the soft walls near the surface, which have yielded to the mechanical pressure exerted during the period of reef formation. On the walls of the reefs evidence of attrition is everywhere to be seen, and the numerous diorite hills bear evidence as to the volcanic activity. It is in reefs such as these I should expect to find rich pockets of gold. It is intended to put the underlie to the level of the shaft, and then drive along the reef north and south. Development work is taking place all round the mine on adjoining leases, although at such shallow depths as to be of no actual value, but of great prospective value, as auriferous stone has been found in every instance. I am now collecting all this information so that it can be added to the map.

SUCCESS GOLD.—The following monthly report for four weeks ending 8 inst., and up to date, has been received from New Zealand: The Big reef crosscut has been driven 35 feet, making a total of 193 feet, besides rising perpendicular 14 feet, for the month; to-day the rise is accurately communicated to the winze sunk on the Big reef and abandoned last month 70 feet deep. The ventilation here now is all that can be desired, and a communication for transit of ores in all the upper sections, now complete and permanent. This Big reef crosscut will be continued in a direct line and 100 feet perpendicular under James' east and west reef, and was started on the 16th inst. I expect to cut James' reef at this level (say) at about the same time as our stamps will be ready to work (say) four months. The time is short, but barring unforeseen circumstances, weather especially, it ought to be done. Bennett's level for the month was driven by two men 37½ feet, total distance 214 feet. The bearings of our drivage here have no proportion to the line of James's reef, and is simply this past four months a prospecting crosscut. We have met occasional branches of quartz and reef formation, but of no value. This will be abandoned as soon as we have our titles exchanged and ore area, the application for which is now before the Court. Our deep level crosscut can better follow James's reef westerly, and the Bennett's level utilised in places for ventilation purposes, &c., later on. McDonald's level have been retimbered and prospected. The reef at this point is carrying gold, good dish prospects. We shall shortly rise from James's west level, and develop the said end to surface, and make available this section for stamps. James's west end by a course of clay formation beared the reef more southerly. We have crosscut 11 feet, discovered the reef, and following it up again; it is too shallow to expect much results, but on being surveyed will be communicated to McDonalds and prove if we are on the same part. Two men extended James' east end 22 feet, the drivage being in a horse of ground; we have crosscutted 17 feet at right angles here, and find both walls out of line to be followed for our main level, consequently we shall push ahead to prove if they again come together, or whether they are two distinct veins, and if so, which will be the best to follow. In this direction 70 feet westerly should intersect large reef No. 2. James' reef No. 3 rise is up on the underlay 62 feet; we are within about 28 feet of the surface here, and this will be abandoned shortly as the ground is available. James' reef intermediate level for James' crosscut is now in 207 feet; 32 feet having been driven by two men this past month. This end is in advance of the east end below about 11 feet; the hanging wall is 7 feet from our forebreast as proved by a crosscut, and no doubt the footwall is standing at 4 feet from our drivage, it is corresponding to the level below. The contractors are busily engaged excavating in the solid rock foundations for battery, and cutting timber for stamp woodwork as speedily as possible. The County Council have about 30 men employed making a new road to the gold field at and surrounding our workings, and all together good progress is made. As soon as our new title is granted our method of working will be altered, which as at present cannot be without increase of hands which I shall not recommend. The same men we have can work our ground more advantageously in one holding—*i.e.*, we shall start sinking winzes below James' level, and open up reserves to our deep level crosscut, for the principal alteration and concentrate workings as much as possible in the deep level as developments proceed. We have not added much quartz of any value during the past month to our dump, but hope to do so when we alter our method. We have lots of ground to make available, and all points to the mines being opened out satisfactorily.—(Signed) Francis Hodge.

TARARU CREEK.—The following report on the work done in the company's mines for the four weeks ending February 15 has arrived in London:—In the Norfolk section the 4th, 5th, 6th, 7th, and 8th stopes above the intermediate level on the Californian reef have been in progress. The 4th and 5th are along 54 feet, the 6th 34 feet, the 7th 20 feet, and the 8th 6 feet east of the winze. The reef in these stopes averages 6 feet. The ore coming to hand is still heavily mineralised, and by dish process fair prospects of free gold are obtained. The low level on the same reef has been extended 51 feet. The reef in the face is 2 feet thick, and is now showing more mineral than it has done for some considerable distance, but otherwise there is no change. A rise has been started from this level for the purpose of connecting with the intermediate; this will both open up a large block ready for stoping and drain the top workings. The Miargori main crosscut has advanced 23 feet, making the total distance driven from the California reef 205 feet; at present there is no change in the country.—Dunedin section. The present low level on the Day Dawn reef has been carried forward a further distance of 18 feet; considerable improvement has taken place in the last 10 feet driven. The reef is fully 7 feet wide, the hanging-wall portion is heavily mineralised with galena ore, and strong colours of gold have been seen in the stone. Very little has been done in the place of the tributers level, only one man having been engaged in this work. 14 feet have been completed during the past four weeks. The reef in the face is 2 feet thick, but very little gold is to be seen. Four stopes are in progress over this level; Nos. 1 and 2 are extended 75 feet; No. 3, 60 feet; and No. 4, 40 feet. The reef in the stopes averages 6 feet in width, and the whole of the quartz has been forwarded to the battery. The parallel lode is now to hand; the distance between the two lodes is 29 feet. The reef where intersected is 2 feet thick, but so far no gold has been seen. The intermediate below the tributers level has advanced 30 feet east and 24 feet west of the winze. The reef in these workings is 2 feet 6 inches in width, the ore is heavily mineralised, and colours of gold have been frequently seen. Two stopes are being carried along over the eastern end and one over the western portion. The quartz is of a soft brown friable nature and prospects fairly well. The cleaning out and repairing of the City of Dunedin low level is now completed. The distance driven on the reef is 403 feet; 98 feet have been done during the past four weeks. The reef in the face is 8 feet thick, but at present we are only driving along the foot wall portion, as it is very tight to break. The contractors are making slow progress with the crosscut to intersect the California reef in this section. Owing to the very hard nature of the country they have only been able to accomplish 41 feet. Splendid headway has been made with cleaning out the battery tunnel; the distance now in good order is 850 feet. 350 tons of quartz were crushed, and we cleaned up and retorted to-day 444 ounces of amalgam for a return of 109 ounces 9 dwts. of retorted gold, which was reduced on melting to 107 ounces 17 dwts. At present there is only sufficient water to work 10 head of stamps, and these driving very slowly.—(Signed) W. H. Argall.

LOMA.—The mine superintendent reports, under date Feb. 13, as follows:—Washing has been continued during last month on the Soto Mine with all the available water. The appearance of the mine has not altered since my last. I intend cleaning up about February 27. The ditches, syphons, and reservoir are all in good order. I am very sorry to say that it is a fact that we have been very short of water nearly everywhere during the late rainy season. In the month of January, as you will see by the water diary, we were able to wash over 300 hours, but this last fortnight it has been very dry again.—Mine. This is looking first-rate, and everything is in good order, and if we do not have a good clean up I shall be very disappointed. We are busy putting in some new sluices in front of the Soto Mine.

OPHIR CONCESSIONS AND EXPLORATION.—Extracts from a circular issued by the directors:—Africa, Mozambique claims. Regular reports have been received from Mr. Watts, the agent of the company, who is actively engaged opening up some of the claims he has acquired for the company, and of which he speaks very hopefully. On the claims which he has named the Iron Duke he has been putting in two drives, the east drive to a distance of about 250 feet, and the west drive to about 70 feet. He has come across many leaders showing gold, but has not yet struck the reef. He is now putting in drives on the Greenwood Range and the Grand Ophir. He reports that development work has been kept back on account of the want of boys, the high price of food, and, owing to the wet season, a good deal of sickness that has prevailed. He finds the reefs hard to trace, but has picked up several pieces of float showing visible.—West Australia, Central Menzies Gold Mines (Limited). Mr. Ballard, who is in charge of this mine, reports that work had been resumed after the long labour exemption granted, and that the crosscut between shafts Nos. 1 and 3 at the 100 feet level was being proceeded with to connect the two shafts, after which he proposes to crosscut to the west, from No. 3 shaft, a distance of 60 or 70 feet, to cut the veins met with at a higher level. In his letter, dated January 20, Mr. Ballard writes: Should I become convinced that neither of these veins is the Friday, I shall, after opening them out by driving, and ascertaining their general direction and value as gold bearing veins, combine this information with my underground knowledge of the Friday itself at the 90 and the 170 feet levels, upon which drives have already been opened to a considerable extent. I shall consider then that the vein has been broken up near the surface in our ground into several minor fissures, and knowing as I do what a magnificent vein it is, and how well defined at the 170 feet level, I shall, with full confidence, be able to mark out a main shaft by which your prospects will be almost certain, as far as any miner can see, to strike the Friday in the more settled country at the lower levels. I have no hesitation in declaring that the probabilities are greatly in favour of the Friday being one of the best defined veins on Menzies at the 200 or 300 feet level, and that it will undoubtedly extend through your ground at those levels. We have found, not only in your ground, but in the ground above mentioned, such indications from small veins cut, as will eventually put us on to the vein itself. It will save us from all further exploration at the higher levels which would have to be done at some future time if not already executed. Even before completing and perfecting my surface operations, I am prepared to declare that I have little hope of seeing anything of this vein in its integrity at the surface levels either in the Emulator or the Florence North, but I am about as certain as a man can be of anything to come that the Friday will be found in the settled country below the 160 feet level, as rich and as good as it shows in the original lease. The following satisfactory telegrams have just been received from Mr. Ballard:—"Menzies, March 17. Joined crosscut; commenced to drive on vein 100 feet level, 1 foot 2 inches thick; dry assay, 40 dwts. per ton." "Menzies, March 23. The north drift 100 feet level, 121 west of shaft No. 1, the vein is 1 foot 3 inches; drive 11 feet; dry assay from face 63 dwts. per ton."—Kurnalpi. On the 48 acres situate in this district the company's agent, Mr. Hacket, has been doing good work, proving the great value of the property. He reports that on one section he has sunk a shaft by the side of the main reef to a depth of 71 feet, the reef being over 15 feet in width, assaying over 1 ounce to the ton, and extending the whole length of the section. Three shafts have been sunk on another smaller reef. A vertical shaft is down 52 feet, and two underlay shafts have been sunk 18 and 23 feet respectively, proving the reef to be from 1 to 2 feet in thickness, from which very rich stone has been raised, assaying over 8 ounces to the ton. There are other reefs on the property not yet developed. On the other section a shaft has been sunk on a lode carrying gold in paying quantities, the width of reef being over 20 feet. The directors propose very shortly to issue the prospectus of the Kurnalpi property, which intend to capitalise on a much lower basis than is usual in West Australian mines. The prospectus will in the first instance be issued to the shareholders in the Ophir Company, who will thus have a preferential opportunity of subscribing for the shares.

UNITED GOLD FIELDS OF MANICA.—From cable advices received from the manager, the board learns that the average assay of the ore body in No. 1 shaft, at a depth of 70 feet from surface, is 15 dwts. gold per ton. This ore body is 17 feet thick. In the No. 2 shaft, at 70 feet from surface, the average assay of the north reef (10 feet thick) is 7½ dwts. per ton; that of the south reef (5 feet thick) is 3½ dwts. per ton. In the No. 3 shaft, at 70 feet from surface, the average assay of the main reef (9 feet thick) is 33 dwts. per ton. The shafts are 150 feet apart. The assays of the other parts of the reef where it has been cut in the new shafts and galleries, extending at intervals over a distance of about 700 feet along the line of reef west from the No. 3 shaft, are expected shortly.

BALMORAL MAIN REEF.—The Johannesburg Consolidated Investment Company are in receipt of a report from the above company containing the following:—"On this property east shaft has now been timbered to a depth of 115 feet, and collar of shaft has also been built in with masonry. Preparations are being made for timbering throughout the west shaft. Good progress is being made in the erection of air compressor, and all the surface works are proceeding satisfactorily."

BROKEN HILL PROPRIETARY.—The following cable has been received from Melbourne:—"Dividend of 1s. per share declared, payable on April 15, the books for which will be made up on the morning of the 1st of that month."

BROWNHILL PROPRIETARY.—The following is a report made by Mr. Hocking, of the Kalgoorlie *Western Argus*:—Extract from the *Western Argus* of February 20. Brownhill Proprietary Gold Mines (Limited). This company has taken over the well-known Brownhill Consols blocks, 10 in number, comprising 129 acres. This big block of ground is situated in the heart of the main mineral belt of the Kalgoorlie district, and contains a complete network of reefs. It will be remembered that the blocks were the subject of a big lawsuit, and it was some time before the purchasing company could obtain possession of the ground. It was just prior to the time of this lawsuit that a trial crushing of a lot of about 40 tons was put through the Leviathan battery, and gave a return of 140 ounces. The ore for this crushing was taken from the main workings of the Consols Central block at a depth of 40 feet. At this point very rich stone is still to be found, and there are two veins in the lode which will give a return of hundreds of ounces per ton. At the mouth of this shaft there is now a pile of 50 tons of stone that would probably go as high as original trial crushing, and also 150 tons of dirt that is of low grade but payable. Since the English company has taken possession of the property, some four or five months ago, an astonishing amount of work has been accomplished on the blocks. Unfortunately, the manager has not yet been able to secure concentration of labour, but this is being asked for from the Warden's Court, and when granted will enable operations to be confined to a few of the blocks, and the chief portions of the property will thus be speedily opened up. The group of properties may be divided into three lines of leases consisting of three blocks each. Each of these three blocks has a main lode, and several smaller lines of reef running through them, or, rather, each has one line that has been well opened up and several about which little is known beyond what is disclosed by pot holes on the surface. In the centre are the three leases known originally as the Brownhill Consols, from the main lode of which the trial crushing was made. The main shaft is down 60 feet, and drives have been put in on the course of the lode for 50 feet each way. At the north end connection has been established with a winze, thus giving good ventilation. In both faces the reef is about 8 feet wide, and consists of very nice looking lode material, consisting of ironstone mixed with quartz and schistose material. It is not so rich as it was at the 40 feet level, but carries fair gold, and its value will probably improve as depth is attained, as has been the case in the Boulder and other mines of the district. Two other prospecting shafts are also being sunk on this line of lode to open it up at the north and south ends. As soon as concentration of labour is secured, it is intended to sink a big main shaft to prove the lode at depth, and if necessary to go down for water. Of these central blocks there are also two other well-defined lodes known as the green and black lodes from their predominating colours, but as yet little has been done to prove their value. A shaft is being sunk on the southern block to test the value of these formations, which are very promising on the surface. On the most westerly line of leases there was practically nothing done prior to the company taking them over. Since then a tunnel has been run in under the big ironstone hill which forms such a prominent feature of the mine, and after passing right through the hill a well-defined lode was struck. This was at a point 500 feet west of the mouth of the tunnel, and, as there was only 30 feet of backs above the adit, the shaft to open up the lode was sunk from the surface. This lode was 20 feet wide at the point at which it was struck, and at a depth of 100 feet it is 12 feet wide. It consists of iron-stoney material common to the district and carries gold. A drive is now being carried along the course of the reef, and is in about 40 feet south from the shaft. This reef is also being opened up on the north and south blocks of this run of country, and there are one or two other lodes of less importance on this part of the property that as yet have been scarcely touched. The eastern group of properties have also had a lot of work done on them, three shafts having been sunk to a depth of 60 feet and two of them connected by means of a drive along the course of the lode. About 150 feet of driving has been done on the course of the lode, and for the whole of this distance the lode has averaged about 3 feet in width. It carries more quartz than most of the formations met with on the mine, and although not sensationally rich, the whole of the length opened up consists of highly payable ore. Captain Vawdrey, assisted by the mine manager, Mr. Hicks, is opening up the property splendidly, and it is pretty clear to anyone acquainted with the district that more work has been done towards developing this group of properties during the past four or five months than has been accomplished by any other company on the field. With the concentration of labour, the work will be simplified, and with deep sinking and further development there is little doubt the mines will become famous.

BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending February 12: Blackwood shaft. 300 level west crosscut lengthened 5 feet, making its total length from plat 200 feet, the face showing sulphide ore mixed somewhat with garnets. We broke 19 tons of ore, averaging 12 per cent. lead, 11 ounces silver, 12 per cent. zinc.—Howell shaft. 300 level southerly drive, off west crosscut, started at a point about 230 feet from plat, was driven 6 feet through fair grade sulphide ore. We broke 28 tons, averaging 23 per cent. lead, 16 ounces silver, and 25 per cent. zinc.—200 level. No. 1 winze off south drive sunk 5 feet, total depth 34 feet, good sulphides showing in bottom. We mined 25 tons, averaging 21 per cent. lead, 11 ounces silver, and 28 per cent. zinc. All (above) exploratory works on lower levels have been stopped for present, and are now letting contracts to break down carbonate ore on the upper levels in southern part of mine, in order to have a reserve dump on the surface ready for the jiggers. We mined 72 tons sulphide from the lower levels, and 25 tons of carbonates from the east leg in the southern section of the mine on the 200 level (No. 1 tribute). We hoisted from the ore chute on the 200 level 81 tons of carbonate ore from the far north stopes, which we dumped on the surface as reserves, and are now starting stoping on the 11th and 12th floors, in order to get things in readiness for the time when the jig plant starts.—Surface. The erection of jig plant proceeding satisfactorily.—Ore shipments. 30 trucks carbonates shipped to Port Adelaide, also 31 trucks sulphides to Block 14 mine during the week, assays of following lots (2) have been agreed with Block 14 Company, Port Adelaide, from previous deliveries, viz.:—115½ tons (net) carbonates from Marsh shaft, containing 23 tons lead and 3861 ounces silver. Also agreed assays (2 lots) sulphides with Block 14 mine, containing 200 tons (net) for 48½ tons lead and 3632 ounces silver.—Week's assays. Carbonates: lead 7·6 to 40 per cent, and silver 6½ to 30 ounces per ton; sulphides: lead 10½ to 24½ per cent., zinc 9 to 27·7 per cent., and silver 7·8 to 17·1 ounces per ton.

CARRINGTON GOLD.—The manager reports by letter that the straight shaft is down 542 feet from the surface. The sinking has greatly improved. A vertical head carries with it a quartzite vein, which no doubt is a good sign, and will continue until a quartz reef or formation is cut in the shaft. This is as Mr. Surveyor White expected.

ETHEL HOPE.—A representative of this company has been sent down from Coolgardie to Perth to look after and expedite the forwarding of the pumping machinery, which has now arrived at Fremantle. The following is the fortnightly report of the managers, Messrs. Bowes, Scott and Co., Coolgardie, dated February 14: During the past two weeks the various works have been pushed forward as fast as circumstances would permit.—Main shaft. This shaft has been deepened 4 feet, total 40 feet. Progress in this shaft has been very slow, principally owing to the difficulty in securing practical miners. The ground also has been very troublesome. The shaft is securely and properly timbered from surface to bottom.—No. 1 shaft, situated upon north end of south lease. This shaft has been sunk to a depth of 18 feet, and timbered a portion of the distance, brace logged up, and windlass fixed.—No. 2 shaft situated near south boundary line of south lease. This shaft has been sunk to a depth of 10 feet, and men are now engaged timbering up. A further cablegram has been received from those gentlemen, dated March 24, as follows: "From No. 1 shaft at a depth of 23 feet struck vein in crosscut, gold bearing, 4 feet wide. Have commenced to drive on the lode (vein)."

GWANDA (RHODESIA) CONSOLIDATED. — The general manager of the company writes as follows, under date February 17: Enclosed please find fortnightly return ending February 12. Mr. Byrne has now received 47 boys, and I expect good progress for the ensuing fortnight. One of the contractors on the Tuli river block was in camp, and offered me 50 claims on the Gwanda belt. I gave him licenses for this number of claims and instructed Mr. Byrne to report on them. Should this report be favourable I will register the claims on behalf of the company. The above-mentioned report from the manager is as follows: Ulitchabese reef, Shafts 1 and 2. No work has been done in either of these shafts during the past fortnight, but one shift of boys will commence to drive crosscut from No. 2. 47 natives have arrived to-day.—No. 3 shaft. Total depth to date 89 feet, average size of the reef 18 inches. The work on this shaft was stopped for a few days owing to the want of labour.—Lady reef, Shaft No. 1, drive 1. Total driven to date 14 feet, driving crosscut. There has been a double shift on this work during the last week.

GINSBERG GOLD.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following:—Manager reports that for week ending February 25 main incline shaft is down 343 feet. Assays for week over a reef width of 1 foot 11 inches, averaged 1 ounce 5 dwts. 2 grains per ton. Development for the week amounted to 94 feet 6 inches. Good progress is being made in the erection of the new battery, battery house, head gear, and incline tramway. The present 10 stamps are working continuously, and the property is fortunate in having a good supply of labour.

HAMPTON GOLD FIELDS.—Extracts from manager's report (Mr. J. M. Craze): Orient Mine. The crosscut west from main shaft has been driven 14 feet, total 61 feet from shaft. I think we must be nearing a reef in this face, as it is letting out water freely. The quantity of water has increased very considerably in this drive, the present yield being fully 3000 gallons per day. The crosscut north-east from south drive has been driven 23 feet. In driving this we discovered a small quartz vein about 1 foot wide, carrying a little gold. I have put men to drive south on this vein, which promises to become payable. I think the prospects of the mine are rather better than for some time past. We are selling both salt and condensed water, and when new condenser has arrived and been erected, I expect the receipts for water sold to almost, if not entirely, cover the cost of working the mines.

HANNAN'S NORTH GOLD.—Fortnightly report to February 14 received from managers by last mail states:—During the last two weeks the extension of the works in progress at the mine have been pushed ahead as vigorously as possible.—West crosscut. This crosscut has been extended a further distance of 14 feet, total from shaft 50 feet. The country in face of crosscut is undergoing a change, indicating that we are nearing the lode.—East crosscut. This crosscut has been extended an additional 8 feet, total distance from shaft 40 feet. The country is a hard diorite. We have discontinued work at this point for the present.—South-west crosscut. This is a new crosscut started to intersect a lode which crossed the shaft about 90 feet from surface. Should the dip of this lode continue as where it crossed the shaft, the lode should be met with within 30 feet from the shaft.—Ladders. We have constructed and fixed in the shaft 120 feet of ladders during the fortnight. There are no new developments to note.

KABOONGA.—Fortnightly report from the mine, dated Feb. 18: Good progress has been made in the mine during the last fortnight, and the first machine (a circular fan 17 feet in diameter by 2 feet 6 inches deep) has been washed from the alluvial, which we have commenced to open up from top of rise in main south west level, with a payable result, the yield of gold being 4 ounces 3 dwts. This is the best yet obtained, and if the wide field of wash dirt which we seem to be opening up is equal in quality, it is good enough to keep the works going while we are driving to the deep ground in the north-west low level. Opening up wash dirt country is at first very slow. I expect to sluice off another machine soon, two machine before the week ends, after which our work in wash will move more quickly. The leading wash dirt drive is now in 73 feet from rise. Heavy boulders of semi-washed quartz (some 2 feet in diameter) are met with, and the wash looks favourable, but face boards are required as a good deal of water comes from the face which makes progress slow. The cross cut south-west, 24 feet from rise, is in 71 feet in a fine face of wash dirt nearly dry and showing a general dip westwards.—North-west deep level. This has been extended to 271 feet from start, and is now in very favourable country, good to work and good to stand. The first contract (300 feet) will be completed this week, and tenders for fresh contract called. Pumps and other machinery working well.

MOUNT ROWE CONSOLIDATED.—The manager, under date of February 19, reports as follows: Exemption having been granted on Mount Rowe, Regina South, and Salesman, the whole of the labour has been concentrated on lease 754, Regina north.—Regina north. This shaft has been timbered throughout, with a wood brattice, and also slides for cage. I beg to confirm the following telegram sent, dated Coolgardie, February:—"Struck an important body of ore Regina 160 feet." I immediately sampled a lot of the stone, and gave you a very safe estimate (as it is well not to be too sanguine) as follows:—The average width is 5 feet 7 inches, and the average value 2 ounces per ton of 2000 lbs. I have finished erection of machinery; exemption has been granted on other leases in order to concentrate labour on this lease; have just commenced to drive. The reef referred to is at the bottom of the Regina north shaft. By referring to section already sent in my previous letters you will see that it is an entirely new reef and quite a new discovery. The sketch will give you a general idea as to how it is probable the reef will run. The outcrop has been laid bare at A, and it is found that from wall to wall it is nearly 10 feet wide. The reef is composed of a grey dolomite veinstone intercalcated with innumerable strings or threads of quartz running in all directions through the mass of stone. The mass has also veins of ironstone disseminating the body, and it appears that along the course of these fractures the ore is the richest. It has evidently been laid down under different conditions to the other reefs and at a different period. The stone will be very easy to crush, rock-breakers and rollers would easily treat it, and the gold easily amalgamated, as it is moderately coarse, the fine to be treated by cyanide. I consider this as the most important discovery yet made on the property, but, as you can see from the amount of work done on the reef up to date, it is not possible to speak with any degree of certainty as to its actual value throughout the property. This is now usually called a formation in this district. I have taken 2 ounces per ton of 2000 lbs. as well within the mark, but owing to the cheapness with which it can be worked, crushed, and the precious metal saved, an estimated cost of 35s. per ton should cover all expenses, even at the present time.

NEW RIETFONTEIN ESTATE.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following:—During the fortnight ending February 27 development has amounted to 226 feet. Reefs have been assaying well, and on the 3rd level in No. 7 mine reef was picked up after a break. Assays from east drive, main reef, have been better than any previously taken from the western section of the property. Mill and cyanide plant are working, but some interruption has been caused to the former by scarcity of native labour.

NEW HEIDELBERG ROODEPOORT.—The Johannesburg Consolidated Investment Company announce receipt of a report from the above company containing the following:—Manager's report for the past week has not yet come to hand, but consulting engineer has just returned from the property, and reports very favourably on the position generally. The work of development has progressed satisfactorily, and by April 1 the amount of work done will be in excess of estimate. Recent troubles and other circumstances of an unlooked for character will delay the starting of the mill, but every effort is bring made to push forward all works.

ROSE HILL UNITED.—Cable report for week ending March 21:—"Lease 226, shaft No. 2. On the 114 feet level crosscut has cut the lode 3 feet wide. In well-defined walls. Good quality. Full of visible free gold.—Lease 1599, shaft No. 2. Shaft is down 48 feet. During the week rich ore (has been) brought to surface. The lode runs through lease 603. This has been proved along the surface."

SCOTTY'S HAURAKI.—Coromandel, February 19: I beg to hand you the following report of progress, &c., for the month ending 8th inst., and up to date:—Hodge's engine shaft. This shaft was sunk by nine men 35 feet, making the total depth below surface 302 feet; the shaft is to-day about 316 feet. The reef discovered, as cabled 8th inst., is a fine body of congenial quartz for gold, and proved in width over 2 feet wide, running north and south with a dip west. This is probably No. 2 reef east of Scotty's, and nowhere, I believe, has it been developed below the battery level. I let down a body of water, and no doubt drained from below that level to our present level, as the water is again much less to contend with. This impeded sinking below the 300 feet. I cabled we were cutting chamber. This had to be abandoned and sinking resumed. The 325 feet will now soon be reached, and chambers cut and lifts fixed; the surface connections for pumping, bob pit, landings, &c., are in a forward state, and the whole work will be completed as near as possible together. This No. 2 reef is very heavily charged with iron pyrites, and the rock is all that can be desired. Six men have extended the crosscut east from shaft towards Corby level 42 feet, making total 121 feet. The rock here is very much improved for progress and appearance, but the men have been engaged since we cut water assisting the shaftsmen. They will now resume driving their crosscut, and we should cut the No. 2 reef here now at any moment, as the dip of the reef sunk through in shaft would bring the reef about the point we are now working. Three men for a part of the month have been driving north on Scotty's reef from the main crosscut in Golden Point level; distance driven, 20 feet; total distance, 93 feet. The reef is disordered and flat. I purpose to drive and communicate to the level driving west of Scotty's to prove this point, and effect good ventilation for developing northwards in our main level. Two men have driven west on Scotty's 12 feet for a part of the month. Total distance driven 73 feet. This is now suspended, and the men put to drive from the crosscut to communicate.—Golden Point, level north, on Scotty's. Two men have been timbering this level, and driven 9 feet due north. This course we purpose to adopt as developments for a main level, and should have been done hitherto by former workers. There is no reef in the forebreast—this will be proved by crosscuts further ahead. There is one point in this development important—namely, if Scotty's do not improve, or if it assume its rich character away north from the fault, we must crosscut east for our No. 2—*i.e.*, the same reef in the bottom of shaft. Driving north and south on the footwall branch east of Snowden's winze by six men was extended 51 feet. The veins the greater part proved disturbed by faults and slides, and is now abandoned. Driving a prospecting level on Flying Cloud reef in the City of Auckland claim have been extended 50 feet, the reef being 6 inches wide, and carrying good mineral indications for gold. This drivage is on a level with the creek. As we gain backs hillward, we may cut gold in more solid rock. With the No. 2 reef to develop from our 300 feet level (*i.e.*, we have much work to overcome, cut chamber, fix lifts, bring down cages, &c., first), with the Scotty's to develop from the other side of the shaft west, with No. 2 and Scotty's to develop in Corby level crosscut, with the Golden Point level north to extend, and all in virgin ground, with sinking overcome, unless a discovery warrant our going a deeper level (this I may say could be done in a short space of time), with the mine equipped with winding and pumping machinery to our present depth, and a battery of 9 head of stamps and all gear, &c., complete (and water for motive power at call in six weeks from this date), I have every reason, speaking from appearances, to believe that Scotty's will now soon come to the front. I could send you plans, but inasmuch I presume you will not hold your annual meeting until our dead work is overcome, and the above points in full swing—I prefer to fix up and in accurate position all our developments as closely and accurately as possible to accompany my first annual report; at this stage it cannot properly be laid out, as the works are not yet sufficiently advanced. The stroke of the pick in new ground in this mine may reveal a rich find sooner than in ordinary reef mining, because the reefs in Scotty's are one and the same as the adjacent Kapanga. The quartz is in No. 2 reef very congenial and characteristic to the famous Hauraki. I took the opportunity of demonstrating this fact to our Mr. Ingall, while he visited our property lately.—Francis Hodges.

WASSU (Gold Coast).—The following report has been sent to the shareholders: During the month of December last the 10 stamp battery worked 10 days 5 hours and crushed 198 tons of ore, producing 195 ounces standard gold, and giving a yield of nearly 1 ounce per ton. In addition to this, tailings and concentrates put through the 12 stamp battery produced 46 ounces standard, making a total return of 241 ounces standard. This realised £938 10s. 2d. During the month of January last the 10 stamp battery worked 13 days 7 hours and crushed 250 tons of ore, producing 285 ounces standard gold, and giving a yield of nearly 1 ounce 2 dwts. per ton. This realised £1111 1s. 2d. The directors deeply regret to state that a cablegram has come to hand informing them that the assistant-manager, Mr. W. E. Sam, jun., was killed by accident. The board feel his loss very acutely. It being decided under the circumstances to send out further assistance without delay, a mine captain, a rock drill man, and a miner, who have been carefully selected, left Liverpool on the 11th inst. for the mines. A compressed air rock drill plant is being constructed by Messrs. Holman Brothers, of Camborne, and will be shipped end of this month. Writing on January 22 the manager states: The present faces throughout the mine are very satisfactory. The south lode Bishop shaft is 4 feet thick, and in Swanzy shaft underhand stopes 1 foot 6 inches. We will be able to get more of it out when we can work it through the Cleaver shaft. The lode in the new property (Cinnamon Bippo) which is a continuation of that now being worked has been struck, and proves to be 4 feet 6 inches wide. The prospects at this point also are, therefore, most encouraging. This property consists of 320 acres, and not 320 acres as stated in the circular letter dated November 20 last. The total acreage of the company's property is 1750 acres.

AUSTRALIAN BROKEN HILL CONSOLS. — The mining manager reports by mail for the fortnight ended February 13 as follows:—Block 96. 280 level east No. 3 rise driven 7 feet 6 inches, total 77 feet 6 inches; no change.—Incline. Stopes west driven 8 feet. No. 6 level east driven 2 feet, total 102 feet. Lode still carrying galena, cobaltite, and fahlerz; a trace of native silver has been met with. Underhand stopes driven 3 feet 6 inches. Passed through a small streak of ore, consisting of galena, fahlerz, and cobaltite; in consequence of this a few holes were put downwards to test whether the ore was carrying down. No. 5 level east driven 11 feet 6 inches, total 305 feet. The lode here has widened, consisting of three veins of carbonate of iron. No. 4 level east, No. 1 rise, east stopes driven 12 feet, west stopes driven 13 feet. Both stopes are looking promising; obtained a little fahlerz and galena, and ruby silver has been met with.—No. 2 west off incline. Stopes driven 13 feet, stoping continued. Lode formation is very wide, carrying a strong vein of iron, containing a little galena and canary ore.—Note. The quantity of rock mined during this fortnight was 2678 cubic feet.

BAYLEY'S REWARD NO. 1 SOUTH.—Mining report, dated Coolgardie, February 3; The following is report of work done for fortnight ending 1st inst,; 170 feet level. Rise at back of this level has been put up 7 feet, total 31 feet. Have yet about 4 feet to rise to connect with winze being sunk from level above. The lode in rise is about 4 feet thick. Am stoping at the back of plat, south of the shaft, where the reef is also showing for 4 feet in width. —120 feet level. Winze sunk a further distance of 7 feet, total depth 17 feet 6 inches from bottom of level. There is no change in the character of the stone which is 3 feet wide. No gold has yet been seen in stone. Stopes in the back of this level are now almost worked out, and will only last a week or two longer.—90 feet level. The prospecting drive going east has been advanced 14 feet 6 inches, total length 22 feet 6 inches. No stone met in driving. Am now sinking a winze from bottom of level at a point 66 feet south of shaft. The reef here is 18 inches wide.—Stone treated. During the fortnight 56 tons have been crushed.—(Signed) Tom V. Browne.

BAYLEY'S NO. 2 SOUTH.—Report received from Mr. W. M. Vivian, mine manager, dated February 19: Replying to your favours of November 15, 22, and 29, and December 6, which accumulated at the mines during my absence on sick leave, I beg to say that in view of the uncertainty as to the quantity of water we shall have available for crushing purposes, I am not prepared at the present stage to recommend the erection of plant for treating the quartz by the wet process. I am anxiously waiting the starting of the dry process plant, which is being erected at Hannan's Brown Hill Gold Mines, about 30 miles from here. It is expected to be ready in the course of a week or two. This being the first plant of the kind inaugurated on the field, the results of the trial are being eagerly looked forward to by the mining engineers, who hope to find in it the solution to the water difficulty. With regard to the pinching out of the reef in No. 6 shaft I feel satisfied that this is not the same reef we have in block 207, but it is probably a disordered offshoot, whose continuity with the main reef at No. 3 shaft is broken by a long bar of intervening felspathic diorite. From the absence of any defined outcrop in this intervening bar I do not think there is any probability of our finding any reef in driving south from No. 3 shaft.—Quartz. Roughly estimated, we have 500 tons in the dump, and I am in treaty to get some put through the battery at the Empress of Coolgardie Gold Mines, about a mile away.—Reef. I have to say that in the 100 feet level north of No. 2 shaft the reef has suddenly pinched in to 8 inches. This is characteristic of this reef, and I think will only be temporary.

BONNIE DUNDEE.—Mine manager's report for fortnight ending January 25: No. 3 shaft, underlie on Victory reef. 1 level north driven 19 feet, total length 244 feet. A soft dyke has cut this reef cut at present. No. 1 winze commenced with No. 2 level north. No. 2 winze, total depth 28 feet. Reef 2 feet, worth 1 ounce per ton.—1 level south. We are raising very good ore on this side of the shaft. The reef is 16 inches thick of 1½ ounce quality. 2 level north driven 18 feet, and holed to winze, total length of level 82 feet. Have intersected a cross formation with 6 inches of mellow stone. 2 level south driven 17 feet, or 74 feet from shaft. Reef in face 15 inches, worth 25 dwts.

BRILLIANT BLOCK.—Mine manager's report for fortnight ending January 22: Underlie shaft deepened 8 feet, 63 feet below No. 8 level. Formation 3 feet wide, with patches of quartz. 8 level east driven 18 feet, total length 157 feet, with leader of poor stone in the end. In the stope reef 1 to 3 feet: 6 to 9 dwts. 7 level east hanging wall drive 172 feet in length. Reef in end 1 foot; 10 dwts. Stopes, reef 6 inches to 3 feet; 6 to 12 dwts. Footwall drive 333 feet in length. Reef in end 20 inches thick; 12 dwts. Reef in stopes (three) 1 to 4 feet of 15 dwts. 6 level west, five stopes with reef 1 to 2½ feet thick; 8 to 12 dwts. 4 level west, one stope with 1 foot poor stone. 4 level east, two stopes on flat reef 6 to 18 inches of 15 dwts. stone.—The new 40 stamp mill. Progress somewhat retarded by the heavy rains.

COLUMBIA (Charters Towers).—The following is an extract from the manager's letter, dated Charters Towers, February 1:—During the fortnight the shaft has been sunk 21 feet and timbered 25 feet, making the total depth 85 feet, and total timbered 74 feet. The ground continues favourable for sinking but is dangerous, as it does not stand well, and a great deal of caution has to be exercised to keep it secure. The actual cost of sinking per foot for wages during the past fortnight amounts to £4 7s., and including firewood, explosives, and other stores, will not exceed £5 per foot. This may be considered fairly satisfactory, considering that the lowest tender was £7 per foot. The boiler has been covered with asbestos, and a shed built over it, which work was just completed in time, as very heavy rains have fallen here since Saturday last, causing a slight loss of time at the mine, but everything is now going on satisfactorily.

DAY DAWN BLOCK AND WYNDHAM.—Mine manager's report for fortnight ending January 24: No. 2 shaft, underlie sunk 10 feet, or 60 feet below 16 level, and 2233 feet from surface. Reef on hanging-wall 4½ feet, and on footwall 2 feet; worth 1 ounce per ton. It is not quite so large, but more defined than when last reported. 16 level east driven 13 feet, or 149 feet from shaft. Footwall face reef 20 inches 12 dwts. Hanging-wall face 3 feet of 1 ounce stone. Stopes average 5 to 6 feet, 15 dwts.—15 level east. No. 4 winze 88 feet deep sunk on 1 foot of stone, with stone underfoot. Stopes, Day Dawn reef, 18 inches, 18 dwts. Stopes, Talisman reef, 1 foot, 25 dwts.—15 level west. Stopes. Reef averages 4 feet, worth (say) 12 dwts.—14 level west. Stopes average 20 inches of stone 15 dwts.—14 level east (intermediate). Stopes average 2½ feet, worth 23 dwts.—13 level west driven 10½ feet, total length 368½ feet. Reef in face 1 foot poor quality. In the stopes 18 inches, 14 dwts.—10 level west. Stopes average 18 inches, worth 14 dwts. No. 3 shaft, underlie, sunk 11 feet, total from vertical shaft 957 feet. Formation 4 feet, with 1 foot of stone of apparently better quality.

GOONGARRIE (Boddington Mine).—Extracts from the report of the mine manager (Mr. Alexander Mills): The shaft that prospectors sunk to a depth of 113 feet was the principal guide you and others had in the purchase of the property. The lode started from the outcrop on the surface and continues down, averaging 3½ feet; the reef is still going down strong and may continue to a great depth. Levels have been opened at various depths—viz., 20 feet, 40 feet, 80 feet, and 113 feet, the reef is showing all the distance driven; the 40 feet level is in 70 feet, 80 feet level about the same, and the bottom level about 80 feet, all to the south-east; gold showing in the stone for the whole distance, particularly in the 40 and 113 feet level; the 80 feet level not so good. To the north-west the reef is not opened out or driven on so much, but both the 40 feet and 113 feet levels show good gold; at the latter depth there occurs a break in the reef, but from indications showing will soon be picked up again, there being a very strong body of stone overhead. The No. 2 outcrop is about 150 feet to the south-east on the same line; this shows very well for gold; an enormous quantity of payable stone can be got from this part, enough to keep 10 of the heads going for five years, and giving profitable returns as the cost of breaking and sending to battery will be very small. Still further to the south-east is another outcrop, out of which I have got fair prospects, this also I consider fair battery stone, thence to the bounday is alluvial workings, all covered with broken quartz; this I intend as soon the battery is erected to keep five head going on this broken quartz and alluvial ground, as I fully believe it will pay well and cost very little to handle. The reef and outcrops to the north-west are not, in my opinion, so valuable as to the south-east, but it has not been thoroughly tested, but from indications and the geological features showing cannot be expected to be so good as to south-east, but I must test this ground further, as gold is a very erractic mineral, "where it is, there it is." The lode is going down strong, the golden outcrops are extensive large quantities of broken quartz and alluvial are available. You have a real good mine, one that will pay shareholders well.

MOUNT ZEEHAN (Tasmania) SILVER LEAD.—Manager reports for week ending February 11: Silver Queen section, No. 8 lode, No. 2 level. Have started winze on south west part of lode and sunk 6 feet. Ore raised, 1 ton firsts and 4 tons good seconds. The Government geologist has been underground to-day and quite approves of what we have done and are doing, and strongly recommends sinking to another level, as there are prospects of a big thing under such a body of iron pyrites, and I fully concur in this.—Machinery. The boiler at the Argent section has been tested to the entire satisfaction of the inspector. Concentator is being overhauled and will be ready for running at the end of the week.

NUNDYDROOG.—T. Richards. Report for the fortnight ending February 29: Kennedy's shaft. The failure of the valve in the bottom lift of pumps just after meeting with a large increase of water in the flooding of this part of the mine on February 24, but with the assistance of a drop lift the water is gradually being drained, and work will be resumed in the bottom levels as early as possible. The 600 feet level north has been driven 19 feet 9 inches, total distance 409 feet 3 inches. Lode 3 feet 6 inches wide, all mixed, assays 3 dwts. 18 grains of gold per ton. A crosscut east is being driven from this level at 382 feet 6 inches from the shaft. It has been put out 11 feet, and some stringers of quartz have been met with. The 600 crosscut west opposite the shaft has been extended 4 feet 6 inches, total distance 68 feet 9 inches; nothing having been met with up to this point this crosscut has been suspended. The 600 south has been driven 12 feet 6 inches, total distance 348 feet. The lode, 3 feet 6 inches wide, assays only a trace of gold. In two stopes in the back of the 520 north the lode averages 3 feet 6 inches in width, and 1 ounce 7 dwts. 12 grains in assay value. The 440 south has been driven 23 feet 6 inches, total distance 1323 feet 6 inches. The 440 south crosscut west has been extended 11 feet 3 inches, total distance 107 feet 9 inches. A few stringers of quartz of no assay value have recently been passed through. The lode in two stopes in the back of the 370 north averages 2 feet 3 inches in width, and 1 ounce 18 dwts. 3 grains in assay value. The 370 north crosscut west has been extended 12 feet 6 inches, total distance 478 feet 6 inches. A well defined lode containing a little quartz has just been intersected. In the stope in the back of the 370 south the lode is 4 feet wide, assaying 3 ounces 17 dwts. 12 grains. The 300 north has been driven 10 feet, total distance 358 feet. Lode, 1 foot wide, assays 17 dwts. 12 grains. The 300 intermediate level north has been driven 10 feet 6 inches, total distance 18 feet 6 inches. The lode, 3 feet 6 inches wide (assays), a trace of gold. The lode in the stope in the back of the 300 south is 3 feet wide and assays 13 dwts. 18 grains. In the stope in the back of the 230 north the lode is 6 feet wide, assaying 16 dwts. 6 grains. The 230 south has been driven 15 feet 3 inches, total distance 261 feet 6 inches. Lode, 3 feet 6 inches wide, assays 2 dwts. 12 grains. The 230 south rise has been put up 13 feet 3 inches, total height 61 feet 6 inches. Lode, 1 foot 3 inches wide, assays 15 dwts. The lode in the stope in the back of the 160 north is 3 feet wide, assaying 1 ounce 5 dwts. The 160 south has been driven 9 feet, total distance 438 feet. The lode, consisting of stringers of quartz, assays a trace of gold. The 95 north has been extended 2 feet, total distance 13 feet. Lode, 6 inches wide, assays 12 dwts. 12 grains.—North shaft has been sunk 11 feet 3 inches, total depth below the 600 feet level 41 feet 6 inches. The lode, 3 feet wide (quartz), assays 11 dwts. 6 grains.—New shaft has been sunk 16 feet, total depth 70 feet from surface.—Main shaft. The 1160 feet level north has been driven 14 feet 3 inches, total distance 19 feet 3 inches. The lode, 6 inches wide, shows a trace of gold. The 1160 south has been driven 7 feet 3 inches, total distance 15 feet 3 inches, lode, 6 inches wide, is of no assay value. The 1080 north has been driven 13 feet 9 inches, total distance 372 feet 9 inches. Lode, 5 feet wide, assays 3 ounces 17 dwts. 12 grains. The winze in the bottom of this level has been sunk 7 feet 6 inches, total depth 24 feet, lode, 5 feet wide, assays 2 ounces 17 dwts. 12 grains. The rise in the back of this level has been put up 24 feet, total height 70 feet 6 inches, lode, 3 feet wide, assays 5 dwts. In the stope in the bottom of the 920 south the lode is 8 feet wide and assays 11 dwts. 6 grains, and in the stope in the back of this level it is 6 feet wide, assaying 8 dwts. 18 grains. The lode in the stope in the back of the 840 south is 6 feet wide, assaying 5 dwts. 15 grains. The 680 north has been driven 13 feet, total distance 545 feet 9 inches. Lode of no assay value. The 520 north has been driven 21 feet 6 inches, total distance 434 feet 6 inches. The 370 north has been driven 9 feet 3 inches, total distance 155 feet 9 inches. Lode of no assay value.—Taylor's shaft. The 1240 feet level north has been driven 6 feet 6 inches, total distance 238 feet. The lode, consisting of stringers of quartz, assays a trace of gold. The 1240 south has been driven 13 feet 3 inches, total distance 238 feet 9 inches. The lode shows a trace of gold. The winze in the bottom of the 1160 north has been sunk 8 feet 3 inches, total depth 20 feet 3 inches. Lode 1 foot wide, assays 7 dwts. 12 grains. In two stopes in the back of the 1000 north the lode averages 3 feet in width, and 5 dwts. 15 grains in assay value. The lode in the stope in the back of the 920 north is 2 feet 6 inches, and assays 5 dwts. 15 grains. In two stopes in the back of the 840 north the lode averages 2 feet 6 inches in width, and 19 dwts. 9 grains in assay value. The lode in two stopes in the back of the 600 north averages 2 feet 3 inches in width, and 19 dwts. 9 grains in assay value. In the stope in the back of the 520 north the lode is 2 feet wide and assays 5 dwts., and in the stope in the back of the 230 south it is 2 feet wide, assaying 6 dwts. 6 grains.—Assay report. Old mill samples, pulp 1 ounce; tailings, 3 dwts. 3 grains.—New mill samples, pulp 1 ounce 7 dwts. 12 grains; tailings, 4 dwts. 12 grains.

NINE REEFS.—Mine report for fortnight ending March 2: Vyvyan's shaft. No. 1 stope in bottom of the 145 feet level north quartz is 3 to 4 inches wide, assaying 3 dwts. 14 grains of gold per ton. No. 2 stope in bottom of the 145 feet level north, quartz is 2 to 3 inches wide, assaying 5 dwts. 19 grains of gold per ton. No. 1 stope in bottom of the 145 feet level south, quartz is 5 to 6 inches wide, assaying 4 dwts. 2 grains of gold per ton. No. 1 stope in back of the 145 feet level south, quartz is 3 to 4 inches wide, assaying 2 dwts. of gold per ton. No. 2 stope in back of the 145 feet level south, quartz is 2 to 3 inches wide, assaying 3 dwts. 8 grains of gold per ton.—South shaft, The 300 feet level north has been extended 23 feet, total distance 145 feet 6 inches. Quartz disordered; assay nil. The 300 feet level south has been extended 24 feet, total distance 150 feet. Quartz 2 inches wide, assay a trace.—Oriental lode, main shaft. We shall complete skip road here in course of a few days, and have started to cut station or plat at the 310 feet level to prepare for sinking.—Baynard's shaft. This shaft is now clear to the 185 feet level, and in good condition. We shall now start to clear this below the 185.—Surface work. Everything is progressing in the usual way.—Health. Good.

NIEKERK (Klerksdorp).—Under date of February 29, the general manager in South Africa, Mr. Joseph Hassell, reports as follows:—The building contractor having finished the houses, the men and natives are now comfortably housed, and the manager has taken up his residence upon the property. In consequence of this, work is now carried on more expeditiously and with greater facility, and for 25 working days I have to report 50 feet driven and sunk, and I have hopes this next month will show even a better return. No. 1 winze is now down 85 feet on the incline, and timbered up to the face. At 70 feet we are drifting upon the lode to the east to connect with No. 2 winze. 25 feet has already been driven, and the lode on the forebreast shows a width of 2 feet from hanging to foot wall. No. 2 winze is now down 45 feet. The lode looks well, being a fine, well-formed body of 3 feet 6 inches wide. Prospecting has been vigorously carried on, with the result that a somewhat disturbed conglomerate vein, with a smaller pebble than that contained in our other discovered reef has been exposed, from 1 to 2 feet wide, giving gold sufficient in quantity to encourage farther development. The old tributors' workings to the east of No. 2 winze, and on the reef which is now being opened up, have received further attention, and, from information received, it would appear that in these shafts, now inaccessible from having had their timber removed, and being full of water, some fairly rich ore was extracted.

NEW KLEINFONTEIN. — The directors submit the summary of operations for January: Mining and milling. Quartz mined, 3095 tons of 2000 lbs.; quartz milled (65 heads ran 15¼ days), 3095 tons of 2000 lbs.; yielding smelted gold, 1028·18 ounces (average per ton 6·65 dwts.) realised £3727 3s. 8d.—Cost per ton. Mining, hauling, and development, 17s. 10·95d.; crushing, sorting, and tramming, 1s. 4·03d.; milling, 3s. 9·20d.; maintenance, 2s. 0·96d.; charges, 3s. 7·68d.; 3095 tons at 28s. 8·72d., equals £4445 10s. 10d.—Cyanide treatment. Tailings treated 2130 tons of 2000 lbs., yielding smelted gold, 294·36 ounces, average per ton 2·77 dwts., realised £883 2s. 1d.—Cost per ton. 2130 tons at 5s. 7·36d., equals £597 16s. 1d.—£5043 6s. 11d. Balance being loss for month £433 1s. 2d.—£5043 6s. 11d.—Capital account. Expended on Permanent mine, £348 9s. 4d.; machinery and plant, £410 7s. 10d.; buildings, £53 8s. 4d.; live stock and wagons, £2 8s. 9d.—£814 14s. 3d.—Mine. Total ore reserves on January 31, 187,285 tons. The ore developed in your mine has been measured up afresh, and owing to the reef being of much greater width than calculated upon, and also to the satisfactory assays obtained from the main reef, it has been considered advisable to include the ore developed from this latter source also, therefore your ore reserves on February 1 is estimated at 187,285 tons. Owing to the recent crisis all operations were suspended on your property from January 1 to January 10, the staff having to go to Johannesburg for protection.—Development. Number of feet driven and sunk 129, against 345 in December. Number of tons developed 4263, against 6548 in December. The general operations are being seriously hampered through the scarcity of native labour.

ROYAL SOVEREIGN.—The manager sends the following report for week ending February 15:—East cross cut from main shaft has been driven 10 feet 6 inches for the past week, making total length 43 feet in lode formation, small leaders running through it. The country being soft makes it easily mined, and I expect to cut the reef in a few days.—Crosscut west of shaft has been driven 12 feet for the week, making total 54 feet in soft diorite, and, according to the underlay, I should cut it at about 60 feet. Both crosscuts are looking very well.—No. 2 western shaft. I have had to stop sinking for the past 10 days on account of bad air. The reef in this shaft is about 3 feet 6 inches wide, and showing splendid gold. A sample of ore brought home from the mine was sent as an experiment to Erith to be treated at Messrs. Easton, Anderson, and Co.'s works by Coward's Patent Niagara Pulveriser, a dry crushing process. The stuff having been thus dealt with was submitted to Messrs. Johnson, Matthey, and Co., who have made the following report:—We have assayed the samples of crushed mineral, as under, and find the following to be the result:—One bag fine (3 qrs. 10 lbs), 6 ounces 12 dwts. 12 grains gold, 12 dwts. silver; one bag coarse (1 qr. 14 lbs.), 22 ounces 6 dwts. gold, 2 ounces 3 dwts. silver per ton of 2240 lbs. of mineral.

UNITED GOLD FIELDS OF MANICA.—Mr. Ferguson reports on January 24, as follows: No. 1 shaft. We are down fully the depth we bargained for, and the gallery at the bottom of the shaft has been run south over 10 feet in quartz leaders, and enclosed vein lining decomposed. At 10 feet 3 inches we have struck what appears to be the main reef body. It looks a body of quartz, but we are only into it some 18 inches yet. We will have to blast our way through it before we can say definitely what width it is. A sample taken this morning from the point A on the face of the reef, where we have struck it, gave gold free on panning in large coarse metal of fine rich colour. One little piece I weighed in the balance, and found it 10·06 milligrams, equal to a weight of about 1-6 grain. The total quantity of the gold was large, and the rock was somewhat encrusted, but had no cellular structure. If the gallery was into the fresh unaltered or unencrusted quartz of the reef we will try some pannings of it, although I do not anticipate it will approach that of point A in quantity of the precious metal.—No. 3 shaft. We have driven on the gallery south a distance of 26 feet 9 inches from shaft, and it looks as if we had got through any reef quartz there is in that direction. We have had four little threads or veins of quartz, each about 2 inches wide, to the south of the main reef body. We have started to sink the shaft again, 21 feet further, right down through the reef, a total depth from surface of 91 feet, which will put it to the same level as shafts 4 and 5, and to water level. This arrangement will enable us to connect all these three shafts by the water level gallery from the swamp, No. 1 west, if desirable, along the line of the reef.—Inspection of western claims 15 to 50. I have been over the full length of the property; some of the prospecting work done is accessible, and most of it can be seen with a little work. Claims 23 to 29 contain a line of quartz outcrop of considerable magnitude, and extensive old workings.—Reef in No. 3 adit. Your inquiries as to width of reef are noted. The width of reef where the adit cut it is 20 inches in the main body, but there are little veinlets near it, 5 inches and 2 inches respectively. In the winze the quartz is somewhat disjointed, but near the bottom it is fully 3 feet. In the old working in Claim 1 a fall has taken place, closing it up; I am informed on reliable authority that it is fully 6 feet wide in quartz. I have seen the quartz from it lying on the heap outside, and panned it with good results. Under date January 31, he reports: Gallery off No. 1 shaft. The gallery driving south has just got through the reef. The width of quartz in the gallery is 10 feet. We are driving through the vein lining to the second body of quartz, which we think forms here as it does in No. 2 shaft gallery. From No. 1 shaft to No. 3 shaft, and probably some distance beyond them either way, as well as below their present depth, a persistent body of quartz exists to the extent of some thousands of tons.—No. 3 shaft. The reef still continues in the bottom of the shaft, but it will probably get across a little to the north of it before the shaft gets down the additional depth of 21 feet further we are sinking it.—Gallery off No. 4 shaft. We have started to drive in the line of the east reef off the crosscut gallery from No. 4 shaft, and in the centre of the ground, composed of threads of quartz and decomposed vein lining, which represents the reef at this point. As we are driving in the direction of No. 3 shaft, which has a large body of reef quartz, it ought to be got in this gallery soon. Under date February 7 he reports:—Gallery off No. 1 shaft. The gallery has got through the vein lining, and is now in the second or south reef body. The width is 6 feet 9 inches presently, but we are not through it all yet. The total width of reef quartz in the gallery is presently 16 feet 6 inches, quite a large body. Mr. Ferguson is now engaged in making assays of the ore bodies encountered.

HANNAN'S REWARD.—Extract from manager's letter, dated February 15; For the week the work has been confined to cutting a chamber at 210 feet, which will be completed on Wednesday. The vein at the 210 feet is from 6 to 15 inches wide and carries from 4 to 6 ounces of gold per ton. We will crosscut on the vein in the hopes of its intersecting the main reef. A bulk sample taken from the 16 feet of veins and country at 312 feet in the main shaft gave by assay a return of 7 ounces 10 dwts. 6 grains of gold per ton.

ROODEPOORT GOLD.—The Johannesburg Consolidated Investment Company announces receipt of a report from the above company containing the following:—During the week ending February 29 mine development was advanced 110 feet. A notable improvement following on the installation of the new compressor plant. Reefs are maintaining their size and value very satisfactorily. Sinking of main shaft is being pushedonforward and also driving on both upper and bottom levels.

BREMNAES GOLD.—The following report has been received from the manager, Mr. Daw, dated Haugesund, March 18: Risvig Mine, 400 feet level. During the week the quartz has been running in strings and bunches, but at the same time we have picked out some stones containing visible gold. The quartz, with its accompanying rock, resembles very much the lode stuff broken when this mine was started. In the 300 feet level the quartz is a little wider than when we wrote you last, but poor in quality. In the other workings there is no alteration to note.—Gaplerkog Mine. The lode in bottom level shows 10 inches of quartz. It is well mineralised, and contains free gold. The quartz in the stope above has increased and is rich in the usual associated minerals in conjunction with which the gold is found.—Fladeenes Mine. The lode in sink shows a further increase in width, apparently owing to the intrusion of some diabasic rock. The quartz, however, retains its former value, width, and character. We are glad to report that the new hauling and landing arrangements are at last completed and work remarkably well. We began a week ago to draw a lot of deads which was blasted in fitting out the shaft, and at the same time put on six men to drive to communicate with the sink. Last Monday we began to send quartz to the mill from this mine. Ten stamps have been pounding away two days, and judging from the plates we hope to have the pleasure of sending you a satisfactory result.

BIG BLOW.—Report received from Mr. W. M. Vivian, dated February 19: Herewith I beg to send you a transverse section of the Big Blow reefs and lode formation at No. 2 shaft. It will be noted that this vast formation or igneous dyke lying between the two walls of the country rock is gold bearing in more or less quantity, and that the major portion of it will pay to crush. The point from which the 23 cwts. of quartz (giving 5½ ounces to the ton) mentioned in the prospectus were taken was in the rise shown on the plan. This rich shoot soon cut out, and in continuing the rise up to the 50 feet level was not again met with. Without counting too much upon it, I think there is every probability of meeting other shutes of a like nature when we come to systematically take out the quartz. These will help to swell the returns. Apart from this consideration, I should like to say again that the company, in a large formation like this, and which can be so cheaply mined, possess a very valuable lasting property, and as there is no question about it containing payable gold, it is one which, when we are able to treat large quantities of quartz, is bound to pay handsome dividends to the shareholders.

CHIAPAS.—Mining report for fortnight ending February 14: Santa Fé Hill drift No. 3 driven 4 feet, total 185 feet. No change. Santa Fé Hill drift No. 3 crosscut driven 25 feet, total 115 feet. Passed out of the gold-bearing formation. Suspended for the present. We have started a drift on the ore from a point in this crosscut about 60 feet distant from its junction with Santa Fé Hill drift No. 3. This drift continued to the south side of Santa Fé Hill will give us an outlet for the ore broken. An assay of the western end of the Santa Fé Hill No. 3 crosscut yielded—gold 5 dwts. 12 grains, silver 2 ounces 3 dwts. 12 grains, copper 1·90 per cent. A sample of the eastern end of the same crosscut assayed—gold 1 dwt. 12 grains, silver 15 dwts., copper 0·43 per cent. San Francisco adit driven 20 feet, total 130 feet. Bottom of end fairly good, reef poor. We are gradually passing out of ore, but having struck ore sooner than we expected, we have hopes of finding a second deposit—namely, the continuation of the San Juan deposit in depth. This drift assayed—gold 7 dwts., silver 9 ounces 10 dwts. 12 grains, copper 5·22 per cent. Providencia Aver crosscut east driven 4 feet, total 61 feet. Wollastonite alternating with dyke rock. Providencia crosscut east No. 1 driven 15 feet, total 290 feet. No change. San Juan extension rise driven 12 feet, total 26 feet. Continues in very good ore, assaying—gold 14 dwts. 12 grains, silver 16 ounces 6 dwts. 12 grains, copper 13·01 per cent. San Francisco crosscut north west driven 11 feet, total 35 feet. Continues in ore, but poor. Assay—gold 3 dwts. 12 grains, silver 2 ounces 3 dwts. 12 grains, copper 3·43 per cent. San Juan extension, on crosscut north-west, driven 6 feet, total 36 feet. Rich in copper, poor in gold.—Taylor deep adit. Timbering opencut.—Extraction. Old Providencia. Extracted 283 tons. Poorer than usual, broken from bottom of stope. Assay—gold 15 dwts., silver 8 ounces 7 dwts. 12 grains, copper 5·46 per cent. Santa Fé stopes sent 76 tons to mill. Santa Fé stope west has improved somewhat. Assay—gold 4 dwts. 12 grains, silver 3 ounces 14 dwts. 12 grains, copper 2·45 per cent.—San Francisco adit. Extracted 11 tons. Fair ore.

CRESCENT.—Fortnightly report of Mr. T. G. Davey, superintendent, dated February 14: Crescent Mine. South tunnel towards main shoot advanced 19 feet, total 384 feet. Ground much softer than hitherto, and dipping easterly; we hope to reach main lode in a few days.—Victory Mine. Drive north of deep tunnel on Neill's shoot extended 21 feet, total 96 feet. Good walls, but very narrow lode formation, which continues to be barren. South drive at same level advanced 19 feet, total 75 feet. Lode formation 10 feet wide, between well-defined walls, of which 3 feet is valued at from ½ ounce to 1 ounce of gold per ton, gold being visible in the stone. There is every indication that the auriferous portion of lode will widen considerably. This shoot, which is highly auriferous, has now been proved for a length of 140 feet. Extension of deep tunnel towards western lode advanced 18 feet, total 173 feet. Ground favourable for driving. Drive south of old tunnel on western lode advanced 41 feet, total 110 feet. We have passed through two short shoots of quartz, each 1 foot wide, and valued at 1 ounce of gold per ton, and to-day a third shoot has been met with which is 6 inches wide, and valued at 15 dwts. per ton. I am of opinion that these short shoots will converge, and form one continuous shoot at a depth similar to that being traversed on the eastern lode.—Orlando Mine. Deep tunnel advanced 13 feet, total 192 feet. Ground somewhat harder than when last reported.—Purchase of a new property. Since my last report a new property comprising about 17 acres, and situated south of and adjoining the Victory, and also adjoining the Crescent leases to the west, has been purchased at a reasonable price—viz., £690. Four lodes have been discovered on this property, one of which is the continuation of the Victory eastern lode, all of which where disclosed, show visible gold, and will be further developed later on. But, in addition to this, the purchase of the property has been considered necessary on account of the consistently auriferous nature of the southern extension of our workings on the Victory eastern lode, the end of the south drive being now only about 300 feet from the Victory southern boundary.—Erection of mill. Operations here are considerably delayed on account of the dilatoriness of the foundry in supplying the machinery, the second five head battery not having yet been dispatched, although all is ready for its reception. It should, however, arrive in a few days.

HAMPTON PLAINS EXPLORATION.—The following is the weekly report dated February 15 of work done by men employed on Block 59: No. 1 shaft has been sunk 3 feet, making total depth from surface 30 feet. During the week skids have been put in for bucket running on underlie. Sets of timber have also been put in where required. The quality of the quartz is about the same as when I reported last, and the reef is 2 feet 6 inches wide. The men will start sinking this shaft by contract on Monday morning (February 17).—No. 2 shaft. On the same line of reef has been sunk 3 feet. The shaft has also been logged up and the windlass made and erected. The men will start sinking this (No. 2) shaft by contract on Monday morning. A blacksmith's bellows and anvil have been fixed at the mine. The men prospecting north-east from the Homestead have failed to strike anything good during the week.

HARRIETVILLE.—Fortnightly report of Mr. T. G. Davey, superintendent, dated February 14:—Tiddledee Mine, Bibby's new lode. Shaft from surface sunk 9 feet, total 115 feet. Lode in bottom 1 foot wide, and valued at ½ ounce of gold per ton. Crosscut east of tunnel E extended 14 feet, total 117 feet, at which point the lode was struck. Drives have been extended 4 feet north and 8 feet south on the lode, which is slightly auriferous. Drive south of tunnel F advanced 53 feet, total 115 feet. Lode 2 feet wide, and occasionally auriferous. Drive north of shaft 100 feet below the surface advanced 27 feet, total 45 feet. Lode has averaged 18 inches in width, and is valued at 15 dwts. of gold per ton.

MYSORE.—R. Hancock. Mining operations for the fortnight ending March 2. Rowse's shaft. 1460 feet level north of crosscut west. There are two stopes in the back of this level, the average width of the lode being 4 feet 6 inches, giving an average assay of 6 dwts. 12 grains.—1360 feet level south of crosscut. There are four stopes in the back of this level, the average width of the lode being 1 foot 7 inches, giving an average assay of 1 ounce 13 grains.—1360 feet level north of crosscut. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 14 dwts. 3 grains.—1360 feet level north of sump winze north-east. This level has been driven 19 feet 6 inches, making a total distance driven of 390 feet. The rise in the back of this level has been put up 10 feet 6 inches, making a total height of 72 feet 6 inches. The lode is 2 feet wide, assaying 13 dwts. 1 grain.—1360 feet level south of sump winze. This level has been driven 12 feet, making a total distance driven of 181 feet. The lode is 1 foot wide, assaying 10 dwts. There are two stopes in the back of this level, the average width of the lode being 4 feet 6 inches, giving an average assay of 14 dwts.—1260 feet level north. There are five stopes in this level, the average width of the lode being 2 feet 7 inches, giving an average assay of 18 dwts. 20 grains.—1260 feet level north of crosscut. This end has been driven 15 feet, making a total distance driven of 88 feet. The lode is 5 feet wide, assaying 1 ounce 15 dwts. The rise in the back at the end of the crosscut has been put up 12 feet, making a total height of 82 feet. The lode is 3 feet wide, assaying 3 ounces.—1260 feet level south of crosscut. This end has been driven 18 feet 6 inches, making a total distance driven of 111 feet 6 inches. The lode is 3 feet wide, assaying 1 ounce 15 dwts.—1260 feet level south. This level has been driven 2 feet 6 inches, making a total distance driven of 272 feet 6 inches. The lode is 9 inches wide, assaying 13 dwts. 1 grain. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 1 ounce 2 dwts. 12 grains.—1160 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 15 dwts.—1160 feet level north of crosscut. This end has been driven 19 feet, making a total distance driven of 117 feet. The lode is 5 feet wide, assaying 2 ounces.—1160 feet level south of crosscut. This end has been driven 16 feet, making a total distance driven of 86 feet. Having struck the dyke, the driving of this has been suspended.—1160 feet level south. The rise in the back of this level has been put up 18 feet, making a total height of 187 feet. The lode is 1 foot wide, assaying 1 ounce 10 dwts. There are six stopes in this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 1 ounce 0 dwts. 12 grains.—North of the crosscut east. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 5 dwts.—1060 feet level north. We have started to drive a crosscut east in this level, 25 feet north of the shaft. Driven 5 feet.—1060 feet level north of No. 2 crosscut. The No. 2 rise in the back of this level has been put up 20 feet, making a total height of 22 feet. The lode is 5 feet wide, assaying 3 ounces.—890 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 15 dwts.—780 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 1 ounce.—620 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 11 dwts. 12 grains.—Taylor's shaft, 466 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 10 dwts.—Crocker's shaft, driving north at the 1060 for plat. Driven 19 feet, making a total distance driven of 35 feet.—890 feet level north. This level has been driven 26 feet 6 inches, making a total distance driven of 253 feet; there is nothing here to report. The lode in the stope in the back of this level is 6 feet wide, no assay made.—890 feet level south. There are five stopes in the back of this level, the average width of the lode being 4 feet 9 inches, giving an average of 1 ounce 1 dwt.—780 feet level north. The lode in the stope in the back of this level is 5 feet wide, assaying 19 dwts. 14 grains.—780 feet level south. There are eight stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 16 dwts. 20 grains.—620 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 6 dwts. 12 grains.—236 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 15 dwts.—Gilbert's shaft. This shaft has has been sunk 8 feet, making a total depth of 161 feet below the 650.—650 feet level north. This level has been driven 4 feet 9 inches, making a total distance driven of 463 feet 3 inches. The driving of this has been temporarily suspended, and the machine put to rise in the back 442 feet north of the shaft, for the purpose of effecting a communication with the winze sunk in the bottom of the 520 feet level north. Risen 13 feet, the lode is 8 inches wide, mixed; no sample taken. — 520 feet level north. There are two stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 8 dwts. 6 grains.—520 feet level south. The winze in the bottom of this level has been sunk 5 feet, making a total depth of 46 feet. The lode is 1 foot 8 inches wide, assaying 1 ounce. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 18 dwts. 6 grains.—360 feet level north. The lode in the stope in the bottom of this level is 2 feet 6 inches wide, assaying 6 dwts. 12 grains.—290 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 11 dwts. 12 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 10 dwts. 18 grains.—Tennant's shaft. 750 feet level north of the crosscut west. This end has been driven 13 feet 6 inches, making a total distance driven of 330 feet 6 inches. The lode is 1 foot 8 inches wide, assaying 8 dwts. 4 grains.—520 feet level north. The lode in the stope in the back of this level is 2 feet 6 inches wide, assaying 10 dwts.—360 feet level north, south of crosscut. There are two stopes in this level the average width of the lode being 2 feet, giving an average assay of 9 dwts. 6 grains.—290 feet level south. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 1 ounce.—Schaw's shaft. 450 feet level north of crosscut. There are two stopes in the back of this level, the average width of the lode being 1 foot, giving an average assay of 1 ounce 0 dwt. 16 grains.—450 feet level south of crosscut. The lode in the stope in the back of this level is 1 foot 9 inches wide, assaying 6 dwts. 12 grains.—320 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 9 dwts. 19 grains.—McTaggart's shaft. This shaft has been sunk 2 feet, making a total depth of 38 feet below the 650.—650 feet level north of crosscut west. This level has been driven 1 foot 9 inches, making a total distance driven of 8 feet. The lode is 1 foot 3 inches wide, assaying 1 ounce.—650 feet level south of crosscut west. This level has been driven 11 feet, making a total distance driven of 49 feet. The lode is 2 feet wide, assaying 1 ounce.—550 feet level north. This level has been driven 15 feet, making a total distance driven of 397 feet 8 inches. There is nothing here to report. The winze in the bottom of this level has been sunk 4 feet 3 inches, making a total depth of 23 feet. The lode is 6 inches wide, assaying 1 ounce.—550 feet level south of crosscut west. This level has been driven 12 feet 6 inches, making a total distance driven of 354 feet 9 inches. There is nothing here to report. The No. 1 winze in the bottom of this level has been sunk 5 feet, making a total depth of 61 feet. The lode is 1 foot wide, assaying 8 dwts. 12 grains. The No. 2 winze in the bottom of this level has been sunk 4 feet, making a total depth of 31 feet 6 inches. The lode is 6 inches wide, assaying 8 dwts. 12 grains.—320 feet level south. There are two stopes in the back of this level, the average width of the lode being 2 feet, giving an average assay of 9 dwts. 6 grains.—Prospect shaft, 117 feet level south. This level has been driven 11 feet, making a total distance driven of 21 feet.—Ribbledale's shaft. This shaft has been sunk 6 feet 6 inches, making a total depth of 49 feet 6 inches below the 1520. The lode is 1 foot wide, mixed, assaying 5 dwts. 5 grains.—1520 feet level north. This level has been driven 23 feet, making a total distance driven of 113 feet 6 inches. The lode is 5 feet wide, assaying 5 dwts. 5 grains.—1460 rise. The machine having completed the stripping, we are now engaged in timbering and securing the shaft.—Crosscut west from the 1060. This has been driven 14 feet, making a total distance driven of 122 feet.—Williams' shaft, crosscut east from the 173. This end has been driven 3 feet, making a total distance driven of 186 feet 6 inches. Health good.

MYSORE WEST AND MYSORE WYNAAD.—Tank Mine. Monthly report for February: South shaft. 507 crosscut west has been driven to a distance of 115 feet 3 inches, making a progress of 12 feet. At a distance of 108 feet from the shaft we cut the lode, it being small and poor. We started to drive north on the lode, and have driven a distance of 46 feet 6 inches. At this distance from the crosscut the lode has improved in size, it now being 1 foot wide and worth 2 dwts. per ton. We expect the lode to improve about 60 feet from the crosscut.—507 crosscut east. This was run for 8 feet to cut into the quartz that came into the shaft above the 507. The lode, which will be referred to as the east lode, is dipping slowly to the east and is 5 feet wide, and worth 15 dwts. per ton. We then commenced driving south on the lode, and the level is now in 24 feet. The lode is 5 feet wide and worth 1 ounce per ton. 450 north is 498 feet 6 inches, in progress 11 feet; this has been stopped for a time, but will be resumed shortly. 450 north winze has been started 60 feet from crosscut, and has been sunk by hand 20 feet 6 inches, the quartz in bottom is 8 feet wide and worth 6 dwts. per ton. The 450 north stope is 3 feet wide and worth 7 dwts. per ton.—450 south. Winze has been sunk 67 feet 9 inches, making a progress of 22 feet. The lode is pinched all the way. This work was being put down to test the ground between the shaft, and the boundary and the pinch continuing to hold we have stopped exploring at this point. 450 south stope north of rise is 4 feet wide worth 7 dwts. to the ton. Stope south of rise 3 feet wide and worth 10 dwts. per ton. Intermediate south stope is 6 feet wide, and worth 15 dwts. per ton. In order to test if the new lode in the 507 (the east lode) is formed by the bending back of the branch met with in the 450 crosscut west before coming on to the "horse" that divides the folds we have continued the old drive on this branch to a distance of 20 feet 6 inches, progress 6 feet 6 inches. Here we shall start a winze, and expect that after dipping away to the west to start with it will fold round and pin up with the 507 drive south on east lode. Walker's shaft is down 55 feet 6 inches, progress 22 feet 6 inches.—The mill. 20 heads have been running this month. The mill ran for 530 hours and crushed 1000 tons of quartz, yielding 654 ounces of gold. We have now started the stonebreaker.—Copy of cable, March 23: 450 level north drive driven on 45 feet, the average width is 4 feet, the average value is 10 dwts. 507 south drive on new lode driven on 48 feet, the average width is 3 feet, the average value is 30 dwts.

MOUNT LYELL.—Engineer in charge of mine reports week ending March 7: South drive, No. 3 tunnel. Face has been driven 2 feet 6 inches, total 541 feet 6 inches. There is no change to note, except that the pyrites are not breaking so well.—South drive, No. 4 tunnel. Drive has been extended 10 feet, total 440 feet, the last 4 feet of which are in footwall rock. Am now opening out to follow wall in a southerly direction.—No. 2 crosscut, No. 5 tunnel. Total length of crosscut is now 26 feet. 3 feet have been driven for week.—Progress report for week ending February 7: Hauling line. Terminal rock cutting about completed, fettling tram line and overhauling bank engine preparatory to starting up for plat laying on inner side.—Smelter building. Various minor works inside smelter siding laid through to pan crusher building, floor laid over blower rooms, &c.—Crusher building. Frames of bins completed, erecting housing over same.—Main chimney. Wholly completed, lightning conductors fixed, total height from base to top 158 feet preparing for short last connection from hill flue to chimney. Smelter haulage line taken up from steam winch down to furnace floor level.—Babcock and Wilcox boilers. Brickwork in progress.—Blast furnaces. Brick shaft of No. 2 completed and raising iron superstructure above feed floor level, shaft of No. 1 in progress. Fitting out smelter blacksmith shop.—Hot blast stoves. Firebrick work in progress.—Converter department. Upper retaining wall finished, inside main dust chamber completed, outside flue in progress, excavation for hill flue in progress. Entire work progressing well. Weather variable.

MYSORE REEFS (Kangundy).—Fortnightly report of Captain M. Scantlebury, mine agent, dated March 4. Underlie shaft. This shaft has been sunk 9 feet 3 inches, now 91 feet 9 inches below the 425 feet level. The quartz is 9 inches wide, assaying 5 dwts. of gold to the ton. Intermediate level 60 feet below the 425 has been extended 8 feet 6 inches, now 26 feet from shaft. The quartz in the end is 1 foot 9 inches wide, assaying 10 dwts. 10 grains of gold to the ton.—Stope behind this end. The quartz is 2 feet wide, assaying 10 dwts. of gold to the ton. 425 feet level north has been extended 11 feet 9 inches, now 165 feet 6 inches from shaft. The lode is 2 feet wide, composed of quartz, schist, and arsenical pyrites, assaying 2 dwts. of gold to the ton. In a few feet more driving we ought to see an improvement. Winze below the 425 feet level has been sunk 6 feet, now 39 feet 3 inches below the level. The quartz 2 feet wide, assaying 18 dwts. of gold to the ton.—Stope north of winze. The quartz will average 1 foot 8 inches wide, assay value being 15 dwts. of gold to the ton. 425 feet level south has been extended 2 feet, now 128 feet 6 inches from shaft. This is suspended. Crosscut west of this level has been extended 4 feet. Stope in bottom of 325 feet level. The quartz is 1 foot wide, assaying 7 dwts. 12 grains of gold to the ton. Vertical shaft has been sunk 1 foot 3 inches, now 318 feet 3 inches from surface. The quartz is 1 foot wide, assaying 16 dwts. 12 grains of gold to the ton. 318 feet level north of shaft has been extended 6 feet. The quartz is 9 inches wide, assaying 12 dwts. of gold to the ton. The 318 feet level south of shaft has been extended 5 feet. The quartz is 1 foot wide, assaying 15 dwts. of gold to the ton.—The 260 feet level north has been extended 5 feet 3 inches, now 283 feet 9 inches from shaft. The lode is 15 inches wide, composed of quartz, schist, and arsenical and iron pyrites, assaying 2 dwts. 14 grains of gold to the ton. We have suspended the driving for the time, and are now driving a crosscut east, which is extended 10 feet 3 inches. I am under the impression that the main part of the lode is to the east.—New north shaft has been sunk 5 feet 3 inches, now 96 feet 3 inches from surface.—Trial shaft in old working to the east of new north shaft has been sunk 25 feet. We are following down the ancient working, and have found quartz left by the ancient workers assaying 10 and 12 dwts. of gold to the ton.

MOSMAN.—Mine manager's report for fortnight ending Feb. 1: North Australian shaft. Raised about 20 tons of quartz for fortnight, and have 60 tons in paddock. Peabody shaft sunk 8 feet, total from surface 450 feet. Ground is hard. Third level north, total length 95 feet. There are leaders in the formation, which is of an encouraging nature. Third level south driven 10 feet. There are a number of leaders through the formation, which may change to solid stone at any time. Have raised 33 tons, worth (say) 35 dwts.—Wyndham's shaft. Have passed the heavy water some 15 or 20 feet, and are cutting a dam, so that future sinking will be comparatively dry, and better progress will be made. 15 level north started 133 feet below No. 14 level, and driven 16 feet. Stone has been met with.—14 level north. Winze sunk a total of 125 feet. Reef 1 foot in bottom, with heavy mineral. Eighth level south stopes again started. Have raised 49 tons, worth over 1 ounce per ton.

MENZIES MINING AND EXLORATION.—Report for week ending March 19: Sinking and driving progress 96 feet, total 1669 feet.—Lady Shenton extended, main shaft. The depth of the shaft is 92 feet, the vein is 2 feet wide, average value 40 ounces per ton of 2240 lbs.—North shaft. The depth of the shaft is 116 feet, the width of the vein is 1 foot 8 inches, average value 17 ounces per ton of 2240 lbs.—Aspasia, west shaft. The depth of the shaft is 47 feet, the vein is 9 inches, average value 46 dwts. per ton.—Ishtar, shaft 4. The depth of the shaft is 22 feet, average value is 23 dwts. per ton of 2240 lbs.

MILLS' DAY DAWN UNITED.—Mine manager's report for fortnight ending January 27:—Shaft, the underlie, sunk a further 12 feet, or 90 feet below No. 10 level. Formation 3 feet 6 inches wide, with leaders of quartz throughout.—10 level driven 30 feet, total length 208 feet.—9 level. Footwall level, No. 1 winze, sunk 10 feet on 2½ feet heavy mineral stone. Stopes over 2 feet 6 inches of heavy mineral stone, and the hanging-wall stopes 2 feet medium

quality.—8 level west. No. 2 footwall winze sunk 9 feet, or a total 70 feet on medium stone.

WESTERN AUSTRALIAN DEVELOPMENT CORPORATION.—The directors send the following reports to hand from the respective mine managers of three of the properties in which this corporation is interested:—Dorothy. Working shaft, east crosscut, at 68 feet level advanced 5 feet, total distance from shaft 46 feet, with lode formation still in face of drive, carrying gold by dish prospects. Shaft vertical sunk an additional 10 feet, total depth from surface 73 feet, coarse gold showing in bottom of shaft. *Re* east crosscut, you will note in my last report that I queried whether the east wall was met in this crosscut, and I am now able to state with confidence that the east wall of lode is not yet visible, and will continue driving east so long as the drive is in lode formation. *Re* sinking winze as mentioned in my last report; this winze was sunk about 10 feet on the underlie, when a small "slide" came in from the east and faulted the stone (which showed gold freely) to the west; therefore I stopped the winze and started to sink the vertical shaft with the results mentioned in the above report. I am of opinion that as depth is attained this immense lode formation will become more compact and settled, and then will be much more easily sampled; at the present a crushing of 50 or 100 tons would be the most reliable method of testing this immense lode.—Armadale. No. 1 shaft 40 feet level. Am extending the north drive (when the air will allow) with a view to connecting with No. 3 shaft. No. 2 shaft 90 feet level. East crosscut advanced 9 feet, and cut hanging wall of lode. North drive same level advanced to 18 feet from shaft, and foreman Molloy reports gold by dish prospects. No. 3 shaft on underlie of lode sunk 20 feet from surface, lode equal to 1 ounce of gold per ton. *Re* No. 5 shaft is 100 feet north of No. 1 shaft and is being sunk on the hanging wall of lode, with a view of connecting with the north drive from No. 1 shaft and later on to connect with the 90 feet level of No. 2 shaft. I have adopted the above course of ventilating the mine, as it will be of value for future operations (stoping the lode).—McKenzie Glenloth. Main engine shaft sunk an additional 7 feet, total depth from surface 114 feet, ground appears to be harder in bottom of shaft.—No. 1 shaft. No. 1 stope north advanced 30 feet, lode varying from 6 inches to 14 inches wide, estimated yield 2 ounces gold per ton. No 1 stope south advanced 15 feet, lode varying from 4 inches to 6 inches wide, estimated yield 2½ ounces gold per ton.

YERRAKONDA.—Fortnightly report of Captain M. Scantlebury, mine agent, dated March 4: South shaft. The 255 feet level south has been advanced 26 feet 6 inches, now 75 feet from shaft. The lode is 4 feet 6 inches wide, composed chiefly of quartz, assaying 4 dwts. 6 grains of gold to the ton. The 255 feet level north has been extended 27 feet 6 inches, now 72 feet 6 inches from shaft. The lode is disturbed by an east and west crossing. We expect to get through this in a few feet more driving.—Trial shaft south-east of Beresford's. This has been sunk 26 feet. The lode in the bottom is 4 feet wide, 3 feet of which is solid quartz. The last sample assayed 4 dwts. of gold to the ton.

BALAGHAT MYSORE.—Report for the fortnight ending February 29: Ogle's shaft. The 270 south from the crosscut east, near south shaft, has been driven 12 feet 9 inches, total distance 22 feet 9 inches, and the quartz 1 inch wide assays 1 dwt. 15 grains of gold per ton. The 270 north from the same crosscut east has been driven 11 feet 6 inches, total distance 15 feet 6 inches, and in this drivage the quartz is 1 inch wide, assaying 7 dwts. 4 grains of gold per ton.—Haines' shaft. The 410 feet level north crosscut east has been extended 2 feet 9 inches, total distance 64 feet 6 inches. Some stringers of quartz are now being met with.—Cyanide works. During the month 2640 tons of tailings have been treated, and 211 ounces of gold obtained, a portion of the gold extracted being still retained in the precipitation boxes.—Thomas Richards.

BAYLEY'S REWARD CLAIM.—Mining report, dated Coolgardie, February 3:—The following is a report of work done in the mine for week ending 1st inst.: Main shaft. Sunk a further distance of 5 feet, total depth 457 feet; ground continues very hard.—No. 5 level. The south drive at this level has been extended 14 feet on the course of the lode, thus leaving about 29 feet to be driven to reach the southern boundary.—P.S. All work underground was discontinued from January 18 to 25, which is the reason for report being for one week only, instead of as usual, for a fortnight.—(Signed) Tom V. Browne, manager.

SIDE LIGHTS ON THE LAW:

Legal Jottings on Cases in the Courts, and on Questions affecting Mining, Railway, Financial, Industrial, and allied Interests.

BY A BARRISTER.

WHO is Trilby? What is she? This has been asked during last week in the Court of Appeal in the case of in *re* Holt's Trade Mark, and answered by three carefully-prepared written judgments of Lords Justices Lindley, Kay, and Smith. The question was naturally one to evoke a considerable amount of interest, although, strange to say, in commercial circles rather than in those of sentiment. We all remember the Chief Justice who asked, with that innocence which so becomes our great judges in the judgment seat, "who or what is Connie Gilchrist?" and we were, therefore, prepared to find, on hearing the above judgments, which are remarkable for their clearness, and for their valuable contribution to the elucidation of a most difficult and important question, that the judges have been unable to agree on an unanimous answer as to who and what Trilby is. Of these three eminent judges, two (Lindley and Smith) answer the first question by saying Trilby is not an individual, and the second by saying that Trilby is a trade mark, while the third judge (Kay) is of the opposite conclusion, and says Trilby is no trade mark, but is an individual, and this latter view appears to have been entertained by yet another learned judge, Mr. Justice North, from whom the case came on appeal.

THE case is one of no small moment to the English mercantile community. More than appears on the face of it hangs on the correctness of the answer now given in the Court of Appeal. There may yet be an appeal to the House of Lords; in the meantime, it is well to know what has been decided, for on the validity of trade marks the value of many businesses depend. The matter came before the Court of Appeal in this way. Last autumn the plaintiff, having registered the word "Trilby" as a trade mark for ladies' gloves, aprons, and blouses, attempted to restrain the defendants by an injunction from infringing it. The defendants' reply was to move the Court to rectify the register by removing the word Trilby therefrom, on the ground that it was not a proper subject of registration. Whether it was so or not depended on the meaning of Section 10 of the Trade Mark Act of 1888, which substituted a new definition of a trade mark for that contained in Section 64 of the Act of 1883. Perhaps no definition ever provoked more discussion, or a greater number of decisions, than that of a trade mark, yet, perhaps, few will have a larger general effect than the present decision. Section 10 says a trade mark must consist of one at least of the following essential particulars:—(a) A name of an individual or firm printed, impressed, or woven in some particular and distinctive manner; or (b) a written signature or copy of a written signature of the individual or firm applying for registration thereof as a trade mark; or (c) a distinctive device mark, brand, heading, label, or ticket; or (d) an invented word or invented words; or (e) a word or words having no reference to the character or quality of the goods, and not being a geographical name.

In order to interpret this definition, which contains five distinct and alternative essentials of a trade mark, the Court lays down this rule to start with that the distinctive feature of your trade mark must consist in one or other of these essential particulars, and the difficulty comes, if it possesses one of them, to say which one. Therefore, if it is in (a) it cannot be (b) and so on, and *vice versâ* if it is in (b) it cannot be in (a). Hence when you have exhausted (a), (b), (c), (d), and come to (e), you know it cannot be in (e) if it is one of the former, because they have already been provided for. The essentials (a) (b) and (c) are the same as in the Act of 1883, and (d) and (e) were substituted for a "fancy word or words not in common use," which could have been registered under the former Act. According to Lord Justice Lindley, Trilby is not the name of "an individual." He does not think the legislature meant "individual" to be taken in a fancy or metaphorical sense, or to denote an imaginary person who never had any real existence. This he illustrates by saying such words as Hamlet, Sam Weller, Jupiter, Venus, &c., cannot be called individuals within the meaning of the section. In this he disagreed with Mr. Justice North, who thought Trilby was the name of an individual, and that, therefore, in order to be registered, it must be printed, woven, or impressed in a distinctive manner, whereas "Trilby," in the trade mark in question, was not. Lord Justice Kay, on the other hand, thought that, being the name of a supposed human being, it was the same as the name of an individual. Against the view of Lord Justice Lindley were cited cases such as the "Shakespeare" cigar case, where the registration was questioned, but such arguments he disposed of since those were raised under the definition in the Act of 1883, and the question then was whether it was a "fancy word." If the view of the majority of the Court of Appeal in the Trilby case is right, and such words as Trilby are not "invented words" (because, as Lord Justice Lindley said, although "it may have been once an invented word, it long ago became too well known to fall under that head"), and can be made available as monopolies for use as trade marks by registration by reason that it contains the essential particulars in Clause (e), then it cannot be doubted there will be a scramble at the Registration Office to obtain such monopolies. Such a word not being the name of an individual does not require to be printed in any particular manner, and is not subject to the other restrictions contained in Clauses (a) and (b), but may, if it is not a geographical name, be registered with reference to any goods, provided it bears no reference to their character or quality.

"SELLERS' responsibility to cease on shipment." In the case of Gillespie Brothers against Cheney and Company, heard before the Lord Chief Justice in the Commercial Court, for the purpose of deciding the preliminary question of liability, the defendants vainly sought to interpret these not unusual terms in a contract as releasing them from all responsibility from the moment the goods were shipped. The Chief Justice, however, held that to such release it was a condition precedent for the defendants to have shipped the goods contracted for. Had the defendants no better contention, however, than this one, they would never have brought their case into Court. By their contract note, they had contracted with Messrs. Gillespie, commission merchants, to deliver Cyfartha coal, and for the purposes of the trial before the Chief Justice it was assumed by both sides that this had been done. The defendants, therefore, contended, not unnaturally, that they had, therefore, performed their contract; the plaintiffs, on the other hand, contended that as they had before the contract was entered into between the parties informed the defendants the purpose for which the coal was required, namely, for steam coal, the defendants warranted that it was not only Cyfartha coal, but coal which was reasonably fit for steaming purposes, notwithstanding the contract note was absolutely silent on the subject.

THIS question as to whether there is an implied warranty as to the quality and fitness of the goods supplied affects, and should interest every commercial and business man who enters into contracts for the sale of goods which may have to be interpreted by the law of this country. The law on the subject, as the Lord Chief Justice pointed out, is to be found in Section 14 of the Sale of Goods Act, 1893. That section, after first saying that there is no implied warranty or condition as to the quality or fitness for any particular purpose of goods supplied under a contract of sale, proceeds to make an exception which has a wide application. It thus proceeds to except from the above declaration of the law every case in which "the buyer, expressly or by implication, makes known to the seller the particular purpose for which the goods are required, so as to show that the buyer relies on the seller's skill or judgment, and the goods are of a description which it is in the course of the seller's business to supply." In such a case, says the Act of Parliament, "there is an implied condition that the goods shall be reasonably fit for the purpose." Then follows a proviso which I will presently mention. Now, Messrs. Gillespie were agents, and received from principals in Barbadoes a letter, asking them to purchase for them some coal after having first satisfied themselves that it was fit for bunkering of steamers and ships of war. This letter Messrs. Gillespie took to the defendants, who were coal agents, and asked them if they would carry it out, and the defendants undertook to do so, and sent the plaintiffs a contract note containing a description of the coal as Cyfartha, Merthyr, or Hill's Plymouth. The contract note was, however, silent as to the purpose for which it was required, and the note stated the cargo of coal was deliverable at Barbadoes by ship, and that the sellers responsibility was to cease on shipment. The Chief Justice held that these facts brought the case exactly within the law as declared by Section 14 of the Sale of Goods Act. There was a contract of sale under which the goods were supplied. The buyer had made known to the seller the particular purpose for which the goods were required, and gave him notice that he relied on the seller's skill and judgment because he (the buyer) had been asked first to satisfy himself that the coal was fit for "bunkering," and had handed his principal's letter to the seller when he asked him if he could undertake to supply the required coal. The defendants were coal agents, and, therefore, in the course of their business, sold coal; consequently, the goods sold were of the description they supplied in the course of their business; the law, therefore, implied, although no mention was made of it in the contract, that the coal would be reasonably fit for bunkering purposes. There, however, still remained the proviso which I have already mentioned, contained in Section 14, which excepts from the above rule of implied fitness for any particular purpose the case of a contract for the sale of a "specified article under its patent or other trade name." This, the defendants contended, would except coal sold as "Cyfartha." His lordship, however, held that the proviso is intended only to touch manufactured or patent articles, and did not affect any contract of sale of raw material. A careful study of Section 14 of the Sale of Goods Act, 1893, will not come amiss to any trader.

NOTES FROM ANDALUCIA.

PAPER ON THE CUPREOUS PYRITES DEPOSITS OF ANDALUCIA AND ALGARVE.

RETROSPECTIVE AND PROSPECTIVE.

Extracts and Notes from Mining Operations and Reports on these during the past 25 years.

By WILLIAM GUTHRIE BOWIE.

(*Continued from page* 384.)

IN passing, it may be stated that formerly the calcined ore was tipped into tanks, and washed in these as related for the large deposits of raw ore, but had, of course, after a few washings to be taken out and tipped into heaps, called "waste heaps," where they continued to be washed for more copper: but now this expensive and useless way of washing is abandoned in most, and the calcined ore is tipped into deposits direct as explained for the raw ore, but owing to the extra expenses for calcination, &c., the raw ore reaches these deposits at a much more economical cost. Thus the returns given show 3d. as the cost per ton from the pit head, including crushing up to tipping in deposit, &c. This will be equal to a charge of £1 5s. per 100 tons of ore, and, as in the cases of 1, 2, or 3 tons of copper produced, be £1 5s., 12s. 6d., or 8s. 4d. per ton of this metal. This applied, as instanced under calcination, results as follows:—

			Per 100 tons of ore.
Acquired by purchase and exploited by		open-cast	£29 2 11
do.	do.	pillar and stall	41 10 5
do.	do.	dif. overhead stoping	34 9 7
do.	do.	mixed do. ..	32 13 9
Acquired by royalty on ton of ore and exploited by open-cast			30 1 8
do.	do.	pillar and stall	39 10 0
do.	do.	dif. overhead stoping	35 8 4
do.	do.	mixed do. ..	33 0 8

while the cases of royalty on the copper produced, or those by share in profits or paid up shares having as yet no expenses for acquirement, remain as follows:—

			Per 100 tons of ore.
Acquired by royalty on copper produced, shares, or shares in profit, and exploited by		open-cast ..	£21 15 0
do.	do.	pillar and stall	31 3 4
do.	do.	dif. overhead stoping	27 1 8
do.	do.	mixed overhead stoping	34 14 0

Combinations of treatment by calcination and in the natural state can now be calculated at will, and according to proportions of the tons so treated by each, no further estimations need be made, and hence the cementation expenses come next for consideration, which embrace the washing and leaching of the heaps, or the abandoned mines and open-casts, as in Tharsis, Lapilla, Carpio, &c., cementation or precipitation of the sulphates in solution by iron, collecting and preparing this, and its export to consuming centres.

Cementation and Export of Precipitate.

In this department the mines having railways and piers of their own have, as in all the foregoing stages, considerable advantages over the others, as large quantities of iron have to be supplied, and an equal number of tons of precipitate, or proximately so, have to be exported; while the larger the mine the more economical becomes every operation connected with this department.

Pig iron or scrap are used, but as scrap is scarce then a special brand of pig iron is contracted for, and much depends upon the purity of this, whether a good class of precipitate is produced, or much iron is consumed per ton of pure copper realised, and cases are on record where iron has been received that would not act at all. Graphitic carbon, combined carbon, silicon, sulphur, phosphorus, &c., are often present in undue quantities in the pig iron sent to this cementation, as manufacturers formerly imagined that pig manufactured from their impure materials was good enough for this, but charge the best prices; hence great care is necessary to examine the iron as received for all its impurities, while the exposure of too much iron to the liquors beyond the copper content of these last, and which is proper to precipitate the same, causes great losses in iron. Another waste of iron can be easily caused from the liquors being two strong in acids and weak in copper. Thus very uncertain quantities of iron are used to produce 1 ton of pure copper, while regarding the price this is also fluctuant, and here again the large mines have the advantage in contracting large quantities at fixed prices, especially when prices are favourable; hence, including transport to the mines, this of iron has a cost per ton varying from £3 up to £4 10s., and in the past £6 to £7 has been reached in many cases, while many distant ones depending on transport by carts or arrieros even now have costs for iron reaching upwards of £5 per ton.

In the large mines with good liquors the consumption per ton of pure copper produced is about 1½ tons of iron; but, as a rule, 2 tons of this is nearer the general average consumed, and it is safer to estimate the cost for iron at this amount, and £3 10s. per ton as the cost of this put in use in the precipitating tanks and canals at the mines, hence the cost for iron per ton of pure copper realised on sales is £7.

It is found in practice that canals with a proper fall are far superior to tanks for cementation purposes, and produce purer precipitate, and are more economical, hence tanks are rarely constructed now, but more ample and better prepared canals take their place.

The working expenses also vary much, what between liquors from the mines, abandoned open-casts, cupreous schist, and other such materials producing copper, and adding to the production of this, as well as the ore extracted, while the collecting of the precipitate, screening out the scraps of iron, washing away the acids and impurities with fresh water, its calcination, and the tools, materials, and repairs required, are all very variable, and, according to the automatic arrangements and circumstances of the mines, the washing ground and cementation plant, but £2 2s. 6d. per ton of pure copper realised is about the average cost for the above, while bags, stamps, and compressors for the precipitate, although available when returned for several voyages, cause another outlay of about 12s. per ton of copper, estimating the number required for a precipitate containing 70 per cent. Cu. Thus the cost *in situ* per ton of pure copper realised comes to about £9 14s. 6d. for cementation.

(*To be continued.*)

WE are notified that the Home Coal Estates (Limited) have opened a London agency at Winchester House, E.C., with Messrs. T. S. Marshall and James Mitchell as the London Committee, and Mr. David J. Taylor as the London secretary.

STATISTICS RELATING TO COPPER.

FROM THE CIRCULAR OF MESSRS. ARON HIRSCH AND SON.

[SPECIALLY TRANSLATED FOR "THE MINING JOURNAL."]

(*Continued from page* 382.)

[HALBERSTADT, FEBRUARY, 1896.

AUSTRIA-HUNGARY.—Metrical Tons at 1000 Kos.—IMPORTS.

Description.	1891.		1892.		1893.		1894.		1895.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Copper Ores	912		900		637		80		37	
	at 30 per cent. copper=	274	at 30 per cent. copper=	272	at 30 per cent. copper=	191	at 30 per cent. copper=	24	at 30 per cent. copper=	11
Iron Pyrites	30,770		32,261		Total, 44,926		Total, 59,685		54,609	
of which 10,778 tons from Germany, of these we estimate as transit goods and of Spanish derivations only, and from Spain and Portugal.	5,532		11,541 from Germany*		Details unknown, but in proportion to the greater supplies taxed at		8,824 from Germany*		Details unknown, but in proportion to the smaller supplies taxed at	
	18,468		4,322				4,824			
	24,000		15,178				36,176			
			20,000				41,000			
	at 2½ per cent. copper=	600	at 2½ per cent. copper=	500		800	at 2½ per cent. copper=	1,025		900
Raw and Shruff (broken) copper		9,304		8,643		11,823		13,383		11,746
Brass and German Silver raw & broken	2,559		2,012		2,032		608		2,880	
	at 66⅔ per cent. copper=	1,706	at 66⅔ per cent. copper=	1,341	at 66⅔ per cent. copper=	1,359	at 66⅔ per cent. copper=	406	at 66⅔ per cent. copper=	1,953
Copper Manufactures		209		140		78		72		111
Brass Manufactures, including German Silver, Red Brass and Tubes...	24		11		28		115		27	
	at 66⅔ per cent. copper=	16	at 66⅔ per cent. copper=	8	at 66⅔ per cent. copper=	18	at 66⅔ per cent. copper=	76	at 66⅔ per cent. copper=	16
Copper Plates (thin) and Metal Wares		15		27		78		35		29
Brass Plates, including German Silver, Red Brass and Bronze	30		24		40		466		114	
	at 66⅔ per cent. copper=	20	at 66⅔ per cent. copper=	16	at 66⅔ per cent. copper=	26	at 66⅔ per cent. copper=	310	at 66⅔ per cent. copper=	76
Cables		22		26		60		68		68
Importation of Raw Material and Manufactures		12,166		10,973		14,433		15,399		14,910
Copper Production in Austria	1,033		836		1,231		1,810		Production unknown as yet; taxed at	
Copper Production in Hungary	289		300		264		308			2,200
		1,322		1,136		1,495		2,118		
		13,488		12,109		15,928		17,517		17,110
Less Export of Raw Material		896		950		1,027		1,060		391
Total Consumption		12,592		11,159		14,901		16,457		16,719

EXPORTS.—A. Raw Material.

Description.	1891.		1892.		1893.		1894.		1895.	
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Copper Ores		1		2		10		5		15
Iron Pyrites	8,359 of which 6085 to Germany, all to be estimated as not containing copper.		6,832*		13		507*		383*	
Copper, raw and broken		297	914	343		431		254		167
Brass and German Silver, raw & broken	898				880		1,202		341	
	at 66⅔ per cent. copper=	598	at 66⅔ per cent. copper=	605	at 66⅔ per cent. copper=	586	at 66⅔ per cent. copper=	801	at 66⅔ per cent. copper=	229
Export of raw materials		896		950		1,027		1,060		401
		B	MANUFACTURES.							
Copper Manufactures	215		234		244		455		259	
Brass Manufactures, including German Silver, Red Brass and Tubes...	556		598		432		661		458	
Copper Plates (thin) and Metal Wares	46		234		244		35		290	
Brass Plates, including German Silver and Bronze	1,620		725		563		109		1,114	
Cables	30	2,467	35	1,853	68	1,551	40	1,300	77	1,998
Exports		3,363		2,803		2,578		2,360		2,399

* As in 1891.

Russia.

Statistics originally stated in pud, which were computed into tons of 1000 kos.

—	1892. Tons.	1893. Tons.	1894. Tons.
Importation of raw copper ...	7,803	12,340	10,442
„ manufactures ...	1,032	1,442	1,049
Production of raw copper ...	4,901	5,436	5,730
Consumption ...	13,736	19,218	17,221

Owing to the state of the Customs, the exports are not at all considerable. No figures are known as yet for 1895; howbeit, it results from reports we have received that both imports and consumption attain at least the same figures as for 1894.

The production for 1894 is distributed over the following districts:—

Kaukasus				150,000 pud.
Ural	Uschkoff ...	18,000 pud.		
	Poschkoff ...	22,000 „		
	Demidoff ...	45,000 „		
	Bogoslowsky ...	70,000 „	= 155,000	„
Altai			17,000	„
Finland, Pitkaranta			27,500	„
			349,500 pud	
At 61 pud = 1000			5,730 tons.	

Recapitulation and Collective Synopsis.

We advert but briefly to prices. The year opened with a price of £40 10s. for g.m.b.* copper. This price then fell by the month of March to £38. After some fluctuations, the price rose in May to £45, only to fall again in June to £42 10s. The prices in September were £47, but they fell again under the influence of the increased production of North America which set in during the summer months, and in consequence of unfavourable financial and political conditions, as low as £41 5s. 11d. at the close of the year.

In New York the year opened with 9·85 cents per pound for Lake copper; in March, with a large business, it fell to close on 9·25 cents, and then rose, uninterruptedly, until August, when it reached its highest point—viz., 12·30 cents. After that the price fell continually, and the year closed at a price of 10 cents. The total fluctuation in the American market, amounting during the past year to about 2·05 cents, is equal to £9 7s. 6d. per ton.

The future aspect of the copper market will materially depend upon the proportion between consumption and production. Consumption has greatly increased during the past year. For the four countries possessing the most highly-developed copper industry, to wit:—Germany, France, England, and North America, it stood as follows:

—	1893. Tons.	1894. Tons.	1895. Tons.	Excess consumption in 1895 as against 1894. Tons.
Germany ...	60,513	62,955	70,349	7,251
France ...	33,886	31,837	40,323	8,486
England ...	96,615	90,069	91,084	1,015
North America ...	77,433	94,511	108,000	13,489
Total ...	268,447	279,372	309,756	30,241

* G.M.B.—Brand.

These figures give for 1894 as a world's production of 324,405 tons, as against the consumption of the four principal countries of consumption of 279,372 tons, a surplus of 45,033 tons. This excess was absorbed notably by the consumption of the other countries consuming this staple, such as principally Russia, Austria-Hungary, Italy, Belgium, Spain, Japan, and, partly by being included in the official stocks of England and France, which in 1894 experienced an increase of 8029 tons. For 1895 these results as a world's production, which we had estimated at a maximum of 340,000 tons, a surplus of 30,244 tons. This excess, as also the 7847 tons by which during the same period the official stocks of England and France decreased, was set free for the consumption of Russia, Austria-Hungary, &c.

In affording our readers a collective view of the condition of production and consumption during the year now past, it may not be overlooked that, without doubt, at the close of the year the invisible supplies held by consumers were smaller than at the close of the preceding year. In years experiencing for the greater part increasing prices, as was the case last year, consumers, and notably those of the countries taking second rank as to consumption, try to work up as much as possible old material. In proof of this assertion we refer to the statistics of Austria-Hungary for 1895 as compared with those for 1894, showing an increase in the imports of old material, and a decrease in those of new (raw) material. So also the increased exports from England, amounting to 29,632 tons, as against 19,457 in the preceding year, can only be explained by assuming a reduction in the invisible supplies of Rio Tinto, Tharsis, &c., extant at the smelting works.

The progress in the consumption, which is, no doubt, still continuing and will, probably, continue increasing, is the soundest support of the copper market.

Independently of the consumption of copper for electrical purposes, whose development with regard to the railway constructions, transfer of power, &c., seems only now to commence on a large scale, the consumption for railways, naval constructions, engines, military purposes, &c., is constantly increasing. Moreover, the supplies of copper-vitriol, containing fully 25 per cent. of metallic copper, are enormous, being employed as a preventative against the spread of the Phylloxera, and absorbs very considerable quantities of copper.

This extensive consumption is met by an ever increasing production. As already stated, the world's production amounted to—

1891. Tons.	1892. Tons.	1893. Tons.	1894. Tons.
279,309 ...	310,472 ...	303,530 ...	324,405

whereas, for 1895, it is as yet unknown; it has, no doubt, been augmented, as against 324,405 tons in 1894, by at least 12,897 tons, which, according to the statement of the American Associated Companies were produced in North America in excess, whereas the 2313 tons which were produced less on the part of the works represented by the European Producers' Committee, are probably compensated for, approximately, by the plus production of extraneous mines in Chili, Canada, &c. Consequently, we have to deal with a production, for 1895, of 335,000 to 340,000 tons. Assuming the maximum of our valuation of 340,000 tons, or a plus-production of 15,595 tons, we shall find that this figure is met by a plus-consumption in the principal industrial countries of 30,340 tons.

Hence it results that the statistical position is, in itself, a brilliant one, and justifies favourable prognostications for the future, provided always that the production in North America is kept within reasonable bounds, and that the commercial state of affairs, notably in that country, continues favourable.

It has, moreover, been recognised in North America that the increase in the production for the second half-year of 1895:—84,755 tons against 70,612 tons in the first half-year evidently contributed materially towards the fall in prices which had taken place in the last quarter of 1895, and this admission is likely to have caused the reduction in the production which took place in December of 13,445 tons as against 15,230 tons in November. It is evidently also militating against the interests of the Americans themselves to continue enlarging the production, and thus to steal a march on the requirements of consumption.

In view of the following consideration it appears miraculous to the parties (circles) interested in Europe that this conviction should not have been gained long ago in America. The Americans assert that their most favourably situated mines produce copper at so cheap a cost as to limit the expenditure to only 7½ cents per lb., although it be yet more than questionable whether, in this computation, amounts to be written off, &c., have been duly taken into consideration. But, even on the basis of 7½ cents, and at a selling price of 10 cents, only 2½ cents is earned. In the middle of 1895 the price in North America rose, in consequence of the moderate productions during the first half-year of 70,612 tons, and of considerable consumption to over 12 cents, which price was kept up until October; but, in consequence of the increased production of 84,755 tons in the second half-year, it fell again to below 10 cents Calculating 70,000 tons at 4½ cents profit, equal 7 million dollars, and 84,000 tons at 2½ cents profit, equal 4¾ million dollars, the result is that 14,000 tons of fine copper were unnecessarily won (worked) out of the out-cropping ore, and that, besides a less profit of 2½ million dollars, has to be registered.

We are inclined to assume that it suffices that the American producers should agree in fixing the production for 1896 at the figure at which it stood during the first half of 1895, with a view to reducing the English and American stocks to such a figure as to exclude the artificial interference of bear speculators. Then the producers of the European group would, undoubtedly, give a similar promise, all the more so as it is not intended to increase the European production. The time will then come of itself when, in the interest of the consumption, a gradual enlargement of the production will become necessary, in order to avoid any exaggerated rise in prices.

The position of the market which, notwithstanding the large production of North America during the second half of 1895, is at present to be looked upon as a very sound one, will depend:

1. On the continuation of large consumption, and
2. On the production remaining limited within moderate bounds.

The wishes we expressed in the end paragraph of our last year's report in relation to some modifications and enlargements of the copper statistics, we would this year again repeat in the same sense and at the same place, and they are:

1. That in the principal French ports an enlargement may take place in the publication made in the manner observed hitherto, in relation to arrivals and deliveries (to consumers) on the basis, and in continuation of the statements of the Board of Trade, and of the Official French Statistics.

2. That the joint communications of the European Producers' Committee and the American Associated Companies may be extended by taking into consideration the American stocks and the American conditions of consumption; by detailing the statements relating to the production of individual mines, as it is done by the European committee, and by including also the smaller copper smelting works of America in the statistics.

3. That the monthly statistics may publish, simultaneously, the monthly statistical figures of Germany, which country may no longer be omitted from the statistics, seeing that the German copper industry has attained great importance.

We should be glad if, in consequence of the foregoing detailed report, the question mooted were to be examined into and promoted, in its various bearings, both in America and Europe, in such a manner as to induce the competent authorities to assist in improving statistics by dealing with it on new principles, which would

have the effect of giving greater consideration than has been the case hitherto, to the transmutations which have taken place during the last years in the conditions of consumption and production.

Although we would not over-estimate the importance of statistics in general, they are, nevertheless, a factor in judging the position of the market, and sufficiently important for being kept up at their highest degree of efficiency by means of improvements in accordance with the exigencies of the times. If it be shown that others are ready to promote a uniform, jointly international action with a view to enlarging and modifying the bases for statistics relating to the copper industry, we shall be glad to contribute towards attaining such an end. On the other hand, we consider that any one-sided proceedings would be out of place and pernicious in their effect, inasmuch as it was owing to the laudable excellence of the English statistics, such as they have been published hitherto, that, in view of their uniform compilation and the concrete groupment of the figures on the part of the firms concerned, all confusion arising from contradictory statements has been avoided.

MINING IN CORNWALL AND DEVON:

NOTES ON MINING IN THE WEST.

(FROM OUR SPECIAL CORRESPONDENT.)

CORNISH tin mining continues to struggle its hardest against the adverse circumstances of the metal market, and the most disparaging of the critics of the industry can but admire the plucky fight which is being made. The secret, of course, is the faith of the average speculator in the ultimate improvement in the tin trade, of which there are every now and again strong indications; and never was that belief more vigorous and emphatic than to-day. Cornishmen who have followed the market all their lives, who have seen the cycles of expansion and contraction, continue to hold on shares in mines which, as at present constituted and worked, have not the least possible chance of paying their way, except with an advance of £10 or £20 in tin. In the share market there is, naturally, not much doing; people do not care to increase their holdings while things continue unsettled, and outsiders who are willing to invest in the county wait to see the turn of the tide before putting their money in, though they may have to pay for their waiting. Our opinion is that as soon as things take a turn in Cornwall, there will be great changes in the working of the mines, for efforts will then probably be made to put all the mines into limited companies, with good working capitals. This will then enable the managers to thoroughly equip their properties, as they ought to have been years ago, out of profits with labour-saving machinery, and so materially reduce the cost of production. It has been shown, as was, indeed, obvious, that the cost can be reduced by organisation and concentration, and proper oversight and future efforts are likely to be devoted particularly to a development of this idea. It means a good deal of money for the initial cost of laying out new appliances, and a re-organisation of labour, but it has to be done, and when a permanent improvement in the price of tin sets in, public opinion in the county will demand an immediate attention to some lessening of the cost of producing mineral.

AT Dolcoath this is now in course of perfecting, and much has already been done by the management, the object being to allow everything to work automatically where possible. The improvements which are going on there are very great, and must result in permanent benefit to the mine. The progress made with the new shaft is somewhat disappointing, but unquestionably the work was started in too great a hurry, in the desire to get the shaft down at the earliest date. They met, too, with difficulties which could not have been foreseen, as, for instance, a particularly wet season. Then the soft ground continued to a much greater depth than was anticipated, and the shaft is even now in soft ground at a depth of 20 fathoms. It was largely this fact that induced the directors to alter the shape of the shaft, which is to be perfectly round, and it has been decided to brick it for the whole distance until the hard granite is reached. The first section of this bricking has been commenced, and when it has been completed it will be a fine piece of work. They will resume sinking in a week or two, when rock-drills will be requisitioned, and much greater progress ought then to be made. Arrangements are being made for carrying out the alteration announced at the meeting in the method of lowering and raising the men, and the adoption of the modern cage for the old-fashioned man-engine must result in benefit to the men and the mine. The mine generally is, we hear, looking very well, and ought soon to still further increase the returns.

IT is surely time that this damaged land claim by Tehidy on South Frances was settled. The discussion of it has been going on for months without any headway being made, and an amicable arrangement would be welcomed by everyone. As has, however, been pointed out, Mr. Basset cannot expect the South Frances people to agree to any sum he desires to name, and it is obvious that he must supply all the information in his power as to the details of his claim, so as to allow the South Frances executive an opportunity of considering each item fairly on its merits.

No notices have been issued for a meeting of Wheal Agar shareholders up to the time of writing, but we hear that a meeting is to be called for April 16. In the meantime the quarrel goes on; Mr. Hattersley and Mr. Branwell are exchanging notes, and the water is rising towards North Tincroft.

VENEZUELAN MINING.—The mining industry of Venezula shows a very great falling off. In 1890 the value of gold exported was £348,234, as compared with £180,000 in 1894. In 1890 the copper ores shipped were worth £97,990, while in 1894 no copper was exported. Gold is found chiefly to the south of the Orinoco and in the Andine States, in the western section of Venezuela. In the former district is the once famous Callao Mine, which paid fabulous dividends for a time. Most of the gold is alluvial, and is as a rule "pocketty" so far as experience has yet gone. It is known, however, that payable quartz exists, as in the case of the Callao, in several districts, and only requires cheaper transport to allow of working at a profit.—*Iron and Steel Trades' Journal.*

MR. DOUGLAS PETRIE has resigned his position as London secretary to the Broken Hill Proprietary Company, on his appointment as secretary to the Smelting Company of Australia (Limited).

The dividend declared by the WEMMER GOLD MINING COMPANY (LIMITED) is at the rate of 50 per cent.

MR. W. E. SWANTON, Chairman of the Doric Gold Mines (Limited), sailed on Saturday, per *s.s. Umbria*, for the company's properties in Colorado.

IN consequence of the expiration of their lease, W. R. Perry (Limited) are removing to more convenient premises at Bush Lane House, Bush Lane, Cannon Street, E.C.

PROVINCIAL SHARE MARKETS.

THE CORNISH MINE SHARE MARKET.

Mr. MICHAEL WILLIAMS BAWDEN, Mining and Assaying Offices, Liskeard, Cornwall, writes (March 26):—The mining market is dull and devoid of inquiry for shares, being practically idle in the absence of any improvement on the tin standard. Prices generally are easier. Quotations:—Basset Mines (fully-paid), 1⅛ to 1⅜; ditto (2s. 6d. paid), 3s. 6d. to 5s.; Blue Hills, 1s. 6d. to 2s.; Carn Brea, 10s. to 12s. 6d.; Devon Consols, 19s. to 21s.; Dolcoath (fully-paid), 16s. to 16s. 6d.; ditto (5s. paid), 4s. to 4s. 3d.; East Pool, 2¼ to 2⅜; Killifreth, 6s. 6d. to 7s.; Levant, 4½ to 4¾; Polberro, 8s. 6d. to 10s.; Tincroft, 1 to 1⅛; West Kitty, 2 to 2⅛; Wheal Grenville, 7 to 7½; Wheal Kitty, 4s. to 5s.; Wheal Metal (3s. paid), 3s. 6d. to 4s.

Messrs. ABBOTT AND WICKETT, Stock and Share Brokers and Mining Share Dealers, Redruth, write under date of March 26:—The market continues dull. A small business in Dolcoath at 15s. to 16s., but most other shares are neglected. Progressive mines are entirely overlooked, but Carn Brea and Tincroft are worth attention at present nominal rates. Quotations: Blue Hills, 1s. to 2s.; Basset Mines, 1 to 1⅛; Carn Brea, ¼ to ⅜; Dolcoath (fully paid), 15s. to 16s.; ditto (5s. paid), 3s. 6d. to 4s. 6d.; East Pool, 2⅛ to 3; Killifreth, 6s. to 7s.; Polberro, ¼ to ⅜; South Crofty, ⅛ to ¼; Tincroft, 1 to 1⅛; West Kitty, 2⅛ to 2⅜; Wheal Grenville, 6 to 6½; Wheal Kitty, ⅛ to ¼; Wheal Metal (3s. paid), 3s. 6d. to 4s. Tin, 60¼.

MANCHESTER.

Messrs. JOSEPH R. and W. P. BAINES, Stock and Share Brokers, Queen's Chambers, 7, Market-street, write, March 26 (noon):—All departments of the market have shown irregularity during the past week. During the greater portion of the period under notice dulness has been the prevailing feature, enlivened only by spasmodic intervals of activity here and there. The approach of a 19-day account, and the preparation therefore, has, in no small degree, accounted for the indisposition to enter into fresh engagements. The arrangement of the account disclosed a fairly good position in home rails, and this, with some excellent traffics announced yesterday, brought in strength in that department, resulting in a general rise therein, the few contractions being, whilst few, at the same time very small in amount—not more than ⅛ in any case. Americans, though they have been pushed down to some very low figures, in the meantime are better than the bottom, still show an unbroken record of depreciations for the week. Canadians have moved similarly to Yankees, and Mexican railway issues, too, are lower. It is significant perhaps that during the declining tendency in other markets that Consols have appreciated to the extent of ⅛. Colonials hardly altered, the single change being a fall of ⅛ in New South Wales Inscribed. Home Corporation stocks and debentures continue in favour, there being numerous instances of advance ranging from ⅛ to 2 to 3 per cent., with a single contradiction in the case of Liverpool 3⅛ per cent, which is marked 1 down. In foreigners, Italian Rentes are put ⅛ up, but the rest of the changes are to lower figures (as will be seen below). Fair business in industrial and other concerns, from banks down to purely miscellanious, the changes in which are given hereunder. Some changes having occurred which do not appear on summary, we append daily details as follow. On Friday last home rails were generally steady, particularly the Scotch stocks, which put on about ⅛ each. Americans began a bit worse than the previous evening, but did not fall away much excepting for Milwaukees and Louisvilles. Nothing of consequence in Canadians; Mexican rails neglected and easier. Saturday was an idle market all round, with nothing of moment in quotations to note. Monday was another dull day, the settlement being so near, mines account being Tuesday, and general on Wednesday Figures, however, did not run off much, excepting in Grand Trunk of Canada issues, these being depressed by anticipations of a poor traffic. Tuesday was a flat day both for Americans and Canadians, but home rails held up fairly well, as also did Mexican rails. Yesterday ushered in a much improved tone throughout the markets, home rails particularly coming into favour. Canadians, too, showed improvements all round, and Americans, though little fresh business was done, were the turn stronger all along the line. The change for the better in home rails was brought about doubtless by the condition disclosed at the carry-over, coupled with some distinctly good traffic returns, the London and North-Western being a large increased "take," and some others comparatively as good. Yesterday's improvement is upheld this morning on nominal figures, though not quite so in all cases.

CONSOLS.—Higher: Two and Three-quarter per Cent., ⅛.

COLONIAL STOCKS, &c.—Lower: New South Wales Inscribed, ⅛.

CORPORATION STOCKS AND DEBENTURES.—Higher: Birmingham Three and a-Half per Cent., ⅛ to ¼; Bristol Three and a-Half per Cent., 1 to 2; Nottingham Three per Cent., ⅛; Oldham Four per Cent., 2 to 3; Stockport Three per Cent., 1.—Lower: Liverpool Three and a-Half per Cent., 1.

FOREIGNERS.—Higher: Italian Rentes, ⅛.—Lower: Argentine Funding, 1⅛, Argentine Five per Cent., 1⅛; Brazilian Four per Cent., ⅛; Egyptian Unified, ⅛; Portuguese Three per Cent., ⅛ to ⅜; Russian Four per Cent., ⅛; Turks D, ⅛; Uruguay Three and a-Half per Cent., ⅛.

BANKS.—Higher: District, ⅛.—Lower: Consolidated, 1-16 to ⅛; Imperial Ottoman, ⅛; National Provincial, ⅛; Union of Manchester, ⅛.

INSURANCE.—Higher: British and Foreign Marine, ⅛; Lancashire, ⅛; Ocean Marine, ⅛.—Lower: Commercial Union, ⅛; Equitable Fire, 6d.; Liverpool, London, and Globe, ⅛; Reliance Marine, 1-16; Royal, ⅛.

COAL, IRON, &c.—Higher: Parkgate, 1.—Lower: John Browns, ⅜ to ½; Cammells, 1 to 2; Ebbw Vale, ⅜; Rhymney, 1s.; ditto New, 6d.

TELEGRAPHS AND TELEPHONES.—Higher: Anglo-American, 1; ditto Deferred, ⅛; ditto Preference, 1⅛; National Telephone, 1-16 to ⅛.

BREWERIES.—Higher: Guinness, 5; Parkers, ⅛; Springwell, ⅛; Tamplins, 1.—Lower: Allsopp's, ⅛.

MISCELLANEOUS.—Higher: Barlow and Jones, ⅛; Bodega, ⅜; Brunner Mond, ⅛; Coats, ⅛; Liverpool United Tramways, ⅜; Manchester Palaces, 6d.; Salt Union, 1-16; Spiers and Pond, ⅛.—Lower: Bell's Asbestos, 1-16; Brooke Bond, ⅛; Hudson's Bay, ⅛; United Alkali, 1-16; Gas Light A, 15; Imperial Continental, 3.

LATER (4 P.M.)—Home rails have held up well to-day, with distinction in the case of Great Eastern, these having put on about 1⅛ per cent. since morning. Following prices from the other side, Americans gained strength, and better figures are the rule, but not to large amounts in any case. The Kaffir market has been depressed to-day on rumours of possible trouble in the Transvaal yet.

SCOTCH MINING AND INDUSTRIAL COMPANIES SHARE MARKETS.

STIRLING.—Mr. J. GRANT MACLEAN, Stockbroker and Ironbroker (March 26), writes:—During the past week the markets have been less active; rates of continuation have been easy to the new account for settlement, April 15—a 19 days' account—but which includes the Easter holidays. Apart from foreign politics, the tendency of prices is upwards, with cheap money and improving trade prospects.

In shares of coal, iron, and steel companies prices are steady. Steel Company B debentures offered; Calderbank Steel lower at £2, Ebbw Vale 5⅛, Marbella 42s., Niddrie 41s, and Steel Company of Scotland 97s.

In shares of copper concerns prices are generally better. Tharsis have advanced to 110s. The dividend is announced at 17½ per cent. for 1895, as against 10 per cent. for 1894. The Rio Tinto dividend is expected next week, and may be 12s. to 14s. per share, as against 4s. last year. Arizona are at 48s., Copiapo 45s., and Mount Lyell 6.

In shares of gold and silver mines a fair amount of business has been done. Prices were at one time steady on expected settlement of the labour difficulties in the Rand, and the announcement that Mr. Rhodes had passed through Beira on his way to Bulawayo, but the market has since gone flat as the difficulty of coming to an arrangement with the Boers. Chartered declined from 100s. to 83s. 9d. Consolidated Gold Fields of South Africa have also declined to 12¼ on the proposal to issue £100,000 new capital in settlement of the managing directors' claims for a part of the profits. Randfontein have declined from 63s. to 57s. 6d., and the other leading shares in proportion. Sheba are steady on a dividend of 1s. being declared, payable April 16. West Australians have been more in favour as the line to Coolgardie is now opened, and good reports are being received from Lady Loch, Great Boulder, and several other mines. Murchison New Chums, after declining to 6s. 6d., have recovered to 10s. on improving reports from the mine. Broken Hill Proprietary shares depressed from 51s. 1½d. to 46s., on various adverse rumours. Appalachian are at 10d.; Aurora West, 27s. 6d.; African Estaters, 46s. 3d.; Afrikander, 26s. 3d.; Bonnie Dundee, 5s. 6d.; Big Blow, 12s. 6d.; Blue Spur, 8s. 9d.; British Broken Hill, 16s.; Charterland, 18s.; Emma 2s. 6d.; Golconda, 8s. 3d.; Gwalo, 1s. 9d.; Gem of Cae, 2s. 6d. to 3s. 6d.; Hit or Miss, 30s.; Harquahala 5s.; Hauraki, 17s.; Hainault, 27s. 6d.; Holcomb, 1s. 9d.; Joe's Reef, 7s.; Kapanga, 10s. 6d.; Kathleen, 4s. 3d.; Lisbon-Berlyn, 7s. 3d.; Luipaard's Vlei, 20s.; Londonderry Consols, 3s.; Mysore West, 24s.; New Steyn Estate, 31s. 3d.; Orion, 51s. 3d.; Ouro Preto, 18s. 9d.; Orient, 9s. 6d.; Rothery Block, 7s. 6d.; Rhodesia (Limited), 25s. 3d.; Spes Bona, 31s. 3d.; St. Augustine, 10s. 6d.; Tamworth, 10s.; Torva Exploring, 25s.; United Rhodesia, 20s. 6d; Violet, 15s. 9d.; Wealth of Nations, 26s.; and West Australian Developments, 22s. 6d.

In shares of miscellaneous companies the principal feature is an advance in oil companies' shares, especially Broxburn, Pumpherston, and Young's Oil. Cheshire Alkali Preferred are at 27s. 6d., and Nobel's Dynamite, 15⅛.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of March 26:—The dividends announced yesterday on Tharsis Sulphur and Copper shares, at 17½ per cent. for last year, as compared with 10 per cent. for the previous year, was above general expectation, and the price rose quickly from 103s. to 109s. 6d. Since last weekly report Arizonas have changed from 46s. 9d. to 48s., Broken Hill from 50s. 6d. to 47s. 3d., Niddrie and Benhar Coal from 40s. to 41s., Dalmeny Oil from 15 to 15½, Oakbank Oil from 5½ to 5⅝, Pumpherston Oil from 6 15-16 to 7, Young's Paraffin from 30s to 30s. 6d. In railways Caledonian Deferred has risen from 56 1-16 to 57 1-16, North British from 44½ to 45 3-16. Insurance shares are in most instances unchanged, but Mercantiles are all somewhat higher. Commercial Bank shares have risen from 74½ to 74¼, Royal from 229½ to 230½. Union are 2s. 6d. lower at 21⅛.

AUSTRALASIAN MINES' OUTPUT FOR FEBRUARY.

GOLD.

	Sept. Ozs.	Oct. Ozs.	Nov. Ozs.	Dec. Ozs.	Jan. Ozs.	Feb. Ozs.
Achilles	—	—	—	725	436	—
Aladdin	1,690	776	1,351	848	434	966
Baker's Creek	1,208	1,615	1,175	1,222	1,116	2,506
Bayley's No. 1 South	115	161	623	70	121	72
Bayley's Reward	276	590	—	—	—	100
Bonnie Dundee	279	576	650	—	520	525
Brilliant	2,780	2,570	3,703	2,470	3,237	2,600
Brilliant Block	2,220	2,770	1,639	1,508	1,296	728
Brilliant St. George	4,204	2,730	2,215	1,585	3,495	2,506
Burbank's Birthday	—	—	—	697	1,160	2,077
Con. Murchison	306	290	304	247	556	322
Craven's Caledonia	420	—	230	—	—	—
Cue Victory	—	101	—	—	—	—
Cumberland	464	241	307	—	—	212
Day Dawn Block	1,414	2,639	2,033	2,233	2,137	1,105
Day Dawn P.C.	393	483	364	619	208	—
Golconda	307	441	—	455	—	656
Golden Arrow	—	—	—	—	—	1,064
Golden Dundee	85	—	20	91	—	—
Great Boulder	6,386	3,208	2,281	3,754	2,522	1,858
Hauraki	—	—	—	—	—	2,393
Ivanhoe	—	—	—	442	277	—
Kapanga	—	—	—	—	—	65
Lake View	1,534	—	—	—	—	—
Mills' Day Dawn	2,166	1,584	1,875	1,116	1,186	767
Mosman	362	—	579	—	587	—
Mount Morgan	11,165	12,540	12,392	12,042	13,513	12,050
Murchison Gold Fields	—	265	—	94	—	—
Murchison New Chum	—	1,100	1,200	1,150	1,015	—
New Queen	900	790	630	495	424	156
Victoria Association	1,195	1,570	1,629	2,117	1,268	726
Victory	—	230	—	49	—	176
Waihi	£10,700	£11,400	£10,020	£16,367	£13,546	—
Wentworth	—	1,532	2,858	2,725	1,102	703
White Feather Reward	—	—	—	1,038	486	447

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Broken Hill Proprietary	570,002	451,473	658,575	751,738	595,068	516,793

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MR. H. P. WOODWARD, of the firm of Messrs. Bewick, Moreing, and Co., mining engineers and mine managers, has been appointed honorary consulting geologist to the Government of Western Australia.

MESSRS. DIGBY, LONG, and Co. have in the press, and will publish immediately, a book entitled "Boer and Uitlander." It is from the pen of Mr. William F. Regan, which is an attempt to present the various issues and episodes in the Transvaal from the Boer point of view. The book will contain portraits and map.

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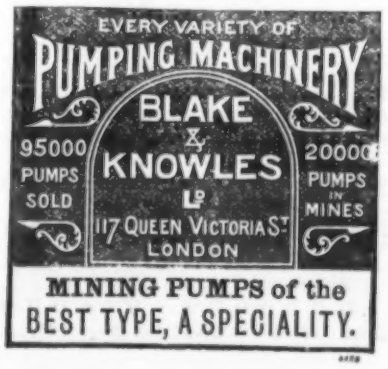
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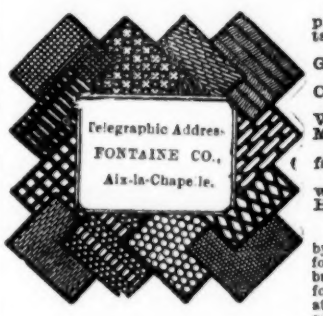

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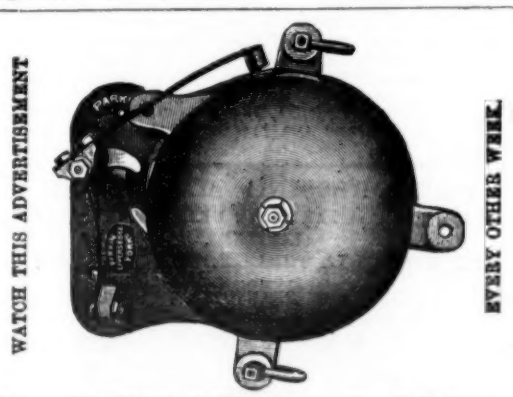

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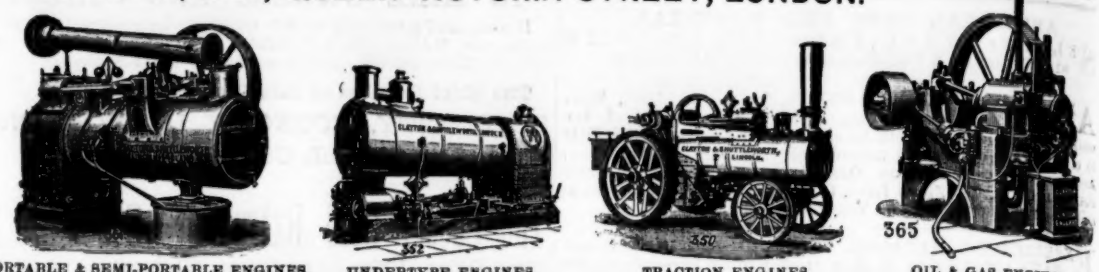

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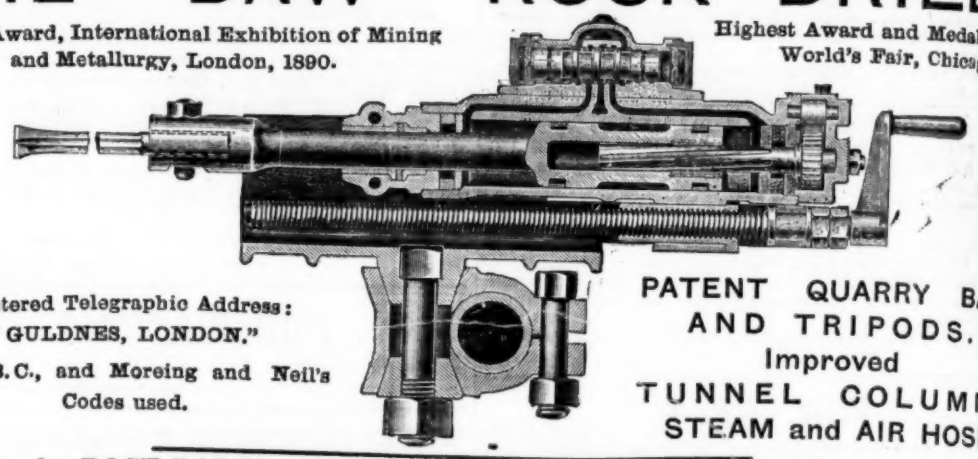

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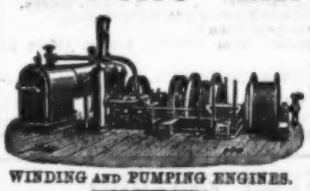

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THE PATENT "HIRNANT" MINING PLANT,
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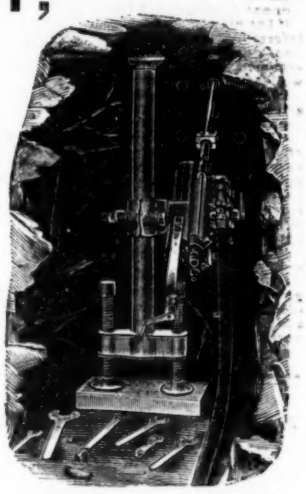

Rock Drill, with Steel Clamp Mounted on Column.

EXTERIOR VIEW—Showing Crushing Head.

Manufacturers of Mining Machinery and complete Macadam Plants.

GATES ROCK AND ORE BREAKER.

Capacity in Tons of 2000 Pounds.

Size 0—2 to 4 tons per hour.	Size 3—10 to 20 tons per hour.	Size 6— 30 to 60 tons per hour.
„ 1—4 to 8 „ „	„ 4—15 to 30 „ „	„ 7— 40 to 75 „
„ 2—6 to 12 „ „	„ 5—25 to 40 „ „	„ 8—100 to 150 „

Passing 2½ in. ring, according to character and hardness of material.

GREAT SAVING IN POWER. Adjustable to any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever introduced into Stone Breaking machinery.

Send for Catalogue, containing over 500 references of Contractors, Miners, Railway Companies, Cement Makers, etc.

By the use of this machine cubical road metal can be produced at a low cost.

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Reducing, Concentrating, Sizing, Screening, Elevating, Conveying, and Loading Machinery.

PATENT LINKENBACH TABLES
For enriching Slimes and Sands.

Stone Breakers, Stamp Batteries, Crushing Rolls, Disintegrators, Burr Stone and Edge Runner Mills, Schranz', Rittinger's, Umfrid's, Ball and other Mills, Trommels, Jiggers, Ruff Wheels, Spitzkasten, Spitzlutten, Percussion, and Belt Tables.

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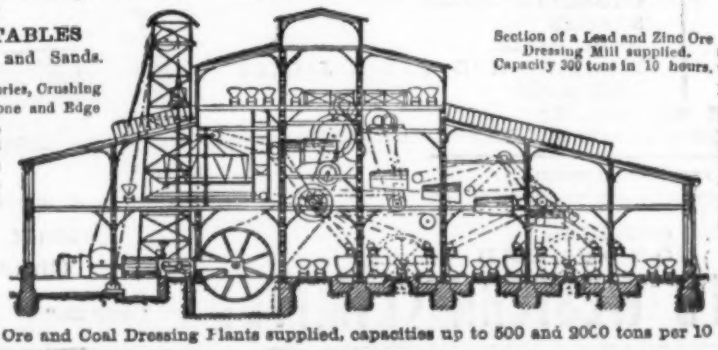
All kinds, in all Metals.



Section of a Lead and Zinc Ore Dressing Mill supplied. Capacity 300 tons in 10 hours.

HIGH-CLASS ENGINES.
Steam Boilers, Ironwork, Winding, Hauling, and Pumping Plant, Air Compressors, Percussion and Rotary Rock Drills, Guibal Fans, Ventilators, Cages, Skips, Keeps, Tipp'ers, Conveyors, Elevators, Lifts, Picking Tables and Bands, Spiral Screens, Chain Haulage.

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For testing Ores, &c., at Kalk.

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Awarded the ONLY Gold Medal for Stonebreaker at the International Inventions Exhibition, in competition with all other makes.

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Lever Hand-Hammer Action Stonebreakers and Ore Crushers,

NEW PATENT FINE CRUSHER OR PULVERIZER.

Fitted with Patent Reversible Cubing and Crushing Jaws in Five Sections, and with Surfaced Blocks, requiring no White Metal in fixing. Crucible Cast Steel Levers and Toggle Cushions, Brass or Gun Metal Bearings throughout.

Positive Draw Back Motion taking no power to work, and entirely dispensing with the old expensive Steel Embedded I.R. Spring. The motion or length of Stroke of the Jaw can be increased or decreased at pleasure, to suit any material.

OVER 5000 IN USE.

70 First-Class Gold and Silver Medals

CATALOGUES FREE.

All Shafts and Axles are made of the Best Hammered Steel.

H. R. MARSDEN.

Soho Foundry,

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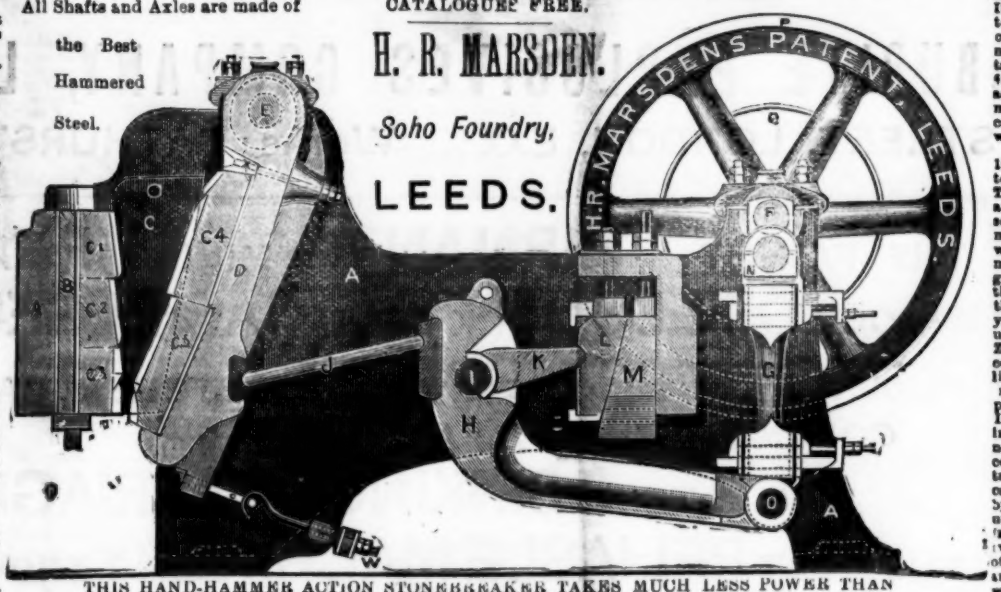

THIS HAND-HAMMER ACTION STONEBREAKER TAKES MUCH LESS POWER THAN ANY OTHER EXTANT.

PULVERIZER TESTIMONIAL

The Fine Crusher we had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder."

"The Pulverizer has now been working two months, and answers its purpose most satisfactorily."

"It is with the greatest satisfaction that we write these few lines in order to acquaint you that the 12×3 Pulverizer you provided us with, has quite fully given the results you represented to us, completely reducing our material to an impalpable powder at one operation. Should you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

"In reply to your favour, I have much pleasure in informing you that the 12×3 Pulverizer we had from you is giving us every satisfaction. The material we are operating on is an exceptionally hard one. I am well satisfied with its working."

"Our experience is that the motion and mechanical arrangements of your machine are the best for pulverising that we have ever met with"

"The reports from our mines as regards the working of your Fine Crusher (20×5) recently supplied are very favourable, although we cannot quote you exact figures. On being got into position it was tried by hand, with the result that it made short work of the biggest pieces of ore we put into the hopper. You might say how long you would take to liver another of the same size."

"As I once before stated, your machine is a perfect pulverizer."

I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulverizer both together with 35 lbs."

STONEBREAKERS AND ORE CRUSHERS TESTIMONIALS.

"We have great pleasure in testifying to the efficiency of the 15 in. by 8 in Lever Hand Hammer Motion Stone Breaker you supplied us with. We find that our 4 h-p. Engine with ease drives it 240 revolutions per minute, and breaks six ton per hour of the hardest "Diorite" Whinstone: the sample is much before any hand-broken we have ever got done. Our Mr. P. J. GRAHAM, C.E., who was Surveyor of Highways for ten years, before joining our firm, says It is by far the most economical machine he ever had to do with; he had two of your former make, and two of another firm's make; compared with these four machines your new patent gives the following advantages:—The horse-power required to drive is exactly 40 per cent. less. The sample of the broken macadam is so far superior to that broken by other machines, and even to that broken by hand that we can make no comparison. It is by far the best sample we have ever seen."

"I now order three of your Stone Crushers, size 15 by 10, to be of your very best construction, and to include two extra sets of Jaws and Cheeks for each. The last two 24×13 machines you sent me, which are at work in this colony, are doing very well. You will soon find that the railway contractors will adopt your machines in preference to the colonial ones—two of which I have. I know other contractors have had as many as nine of them, which have not given very good satisfaction. Once they know of yours thoroughly, I believe you will do a good trade with the colonies. For reference of the high character of your constructions you can refer to me as having used them with the very best results, both in New Zealand and this colony, and much prefer them to the colonial article, both in point of construction and low liability to go out of order. The material we are crushing is very hard blue stone, for railway ballast purposes. Push on with the order as quickly as possible; I do not think it necessary to have any engineering inspection. I have brought your machines prominently under the notice of all large contractors in this colony, likewise the Government. Many of the contractors have spoken to me in reference to their capabilities, and I could only tell them that they are by far and away the best and most economical I ever used. The very fact of me having purchased several from you at various intervals and various sizes, and two above 12 years ago, and having tried all the other makers is sufficient guarantee of the capabilities and the working of your machines. Yours is every way surpass all others."

From His Grace the Duke of Rutland.
Belvoir, Grantham,
December 1st, 1879.

SIRS,—Elliman's Royal Embrocation is used in my stables; I think it very useful.
RUTLAND.
Master of the Belvoir Hounds.

From the Earl of Harrington
January 9th, 1889.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I consider it the best that I can obtain. HARRINGTON.
Master of the South Wilts Hounds.

From Major M. J. Balfe,
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June 16th, 1892.

SIRS,—Elliman's Royal Embrocation is used in my stables, and I can highly recommend it.
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Master of the Roscommon County Staghounds.

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Master of the Berwickshire Hounds.

From R. Burdon Sanderson, Esq., Warren House, Belford.
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R. BURDON SANDERSON.
Master of Percy Foxhounds.

From Wm. J. Buckley, Esq., Penyfai, Llanelly.
July 16th, 1892.

DEAR SIRS,—I have much pleasure in recommending your Royal Embrocation. I always keep a stock in my stables and kennels. My farm bailiff has also found it of much value among my herd.
WM. J. BUCKLEY.
Master of Carmarthenshire Foxhounds.

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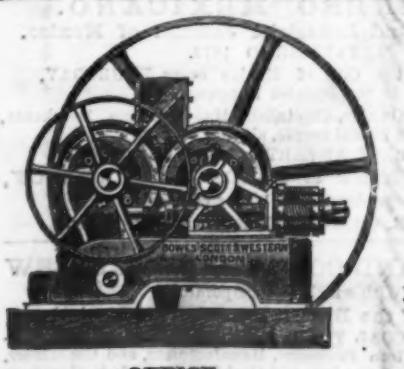
MINING MACHINERY.



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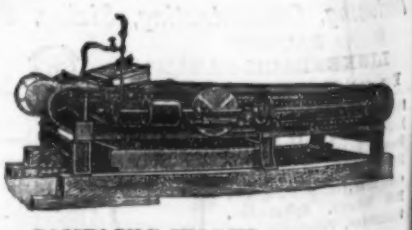

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